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Brown

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[54] **THREE-DIMENSIONAL FOLDED CARTON ACTION FIGURES**

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[21] Appl. No.: **09/111,261**

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Related U.S. Application Data

[63] Continuation-in-part of application No. 08/644,046, May 9, 1996, Pat. No. 5,775,971.

[51] **Int. Cl.**[7] **A63H 3/08**

[52] **U.S. Cl.** **446/388**; 446/97; 446/321; 446/376

[58] **Field of Search** 446/97, 98, 99, 446/100, 321, 376, 384, 387, 388, 390

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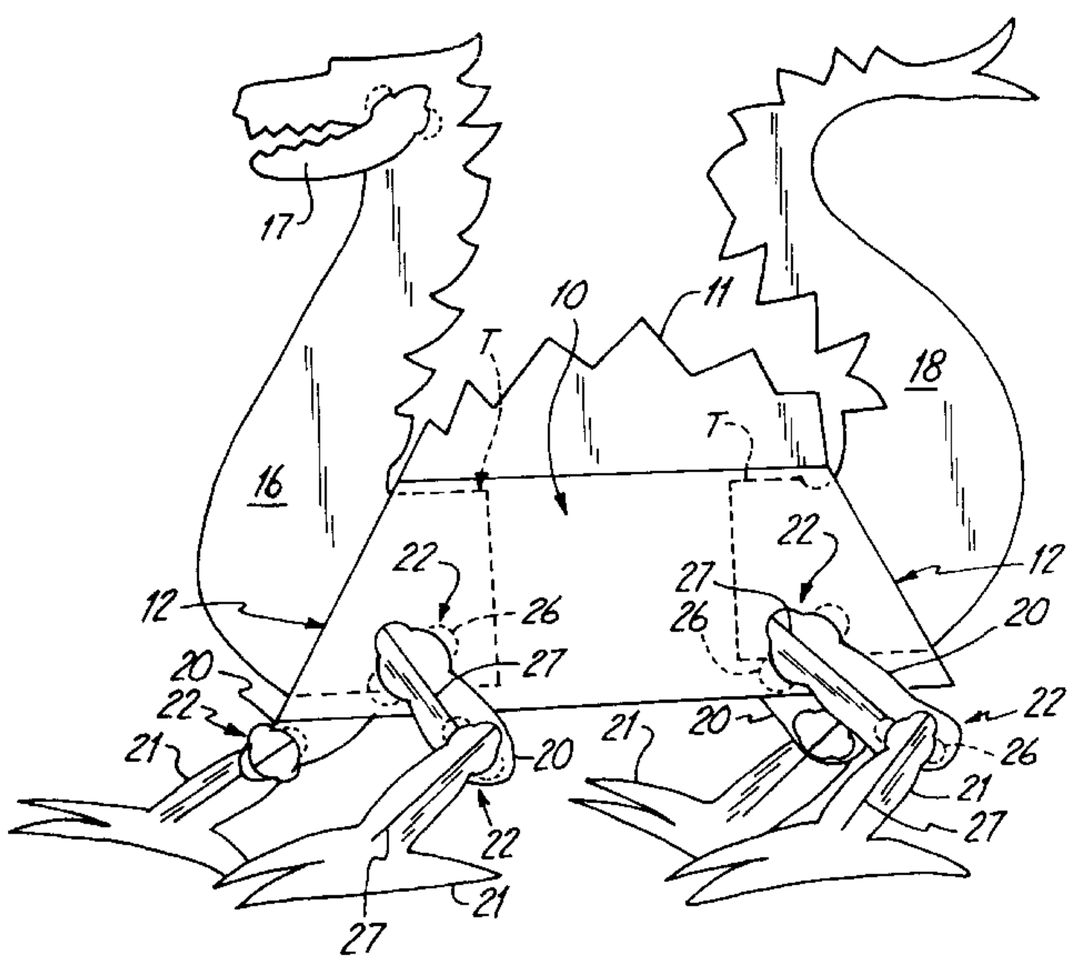
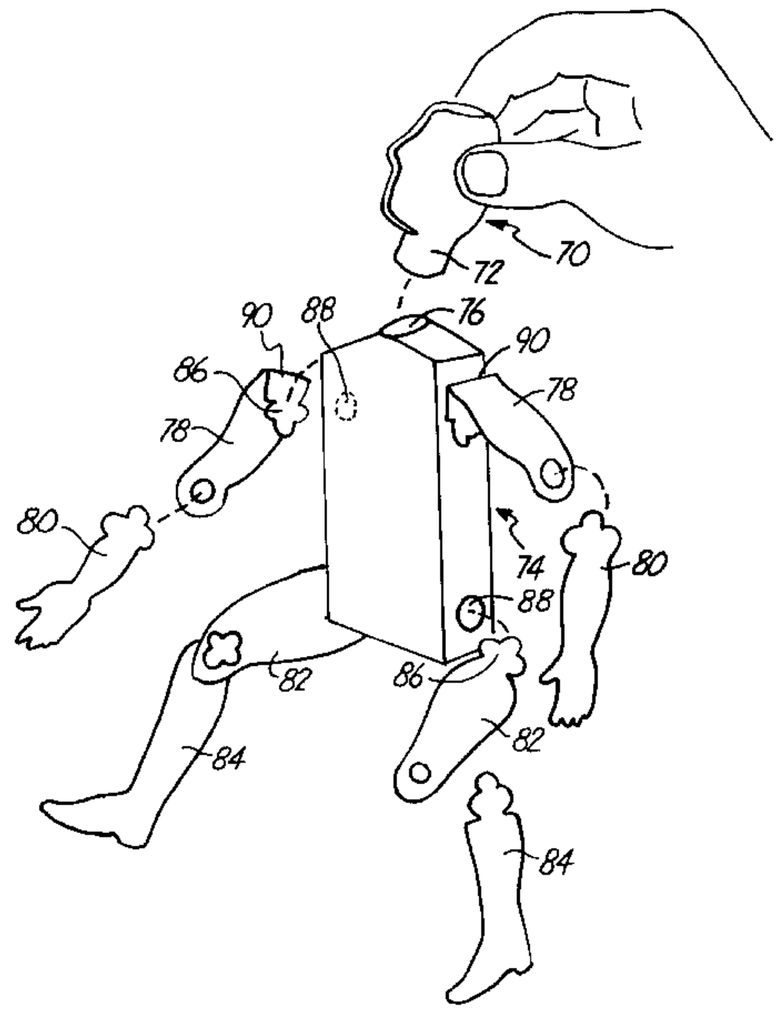
Primary Examiner—John A. Ricci
Attorney, Agent, or Firm—Kinney & Lange, P.A.

[57] **ABSTRACT**

A three-dimensional action figure is formed from flat sheet material. The torso of the action figure is a folded carton formed of sheet material. The action figure includes jointed movable members which are pivotally attached to the torso by means of a novel joint. The joint allows the movable members to pivot 360° without disengagement from the torso, and with no additional support or connection such as a rivet. The characters may include animal, cartoon or human characters.

29 Claims, 18 Drawing Sheets





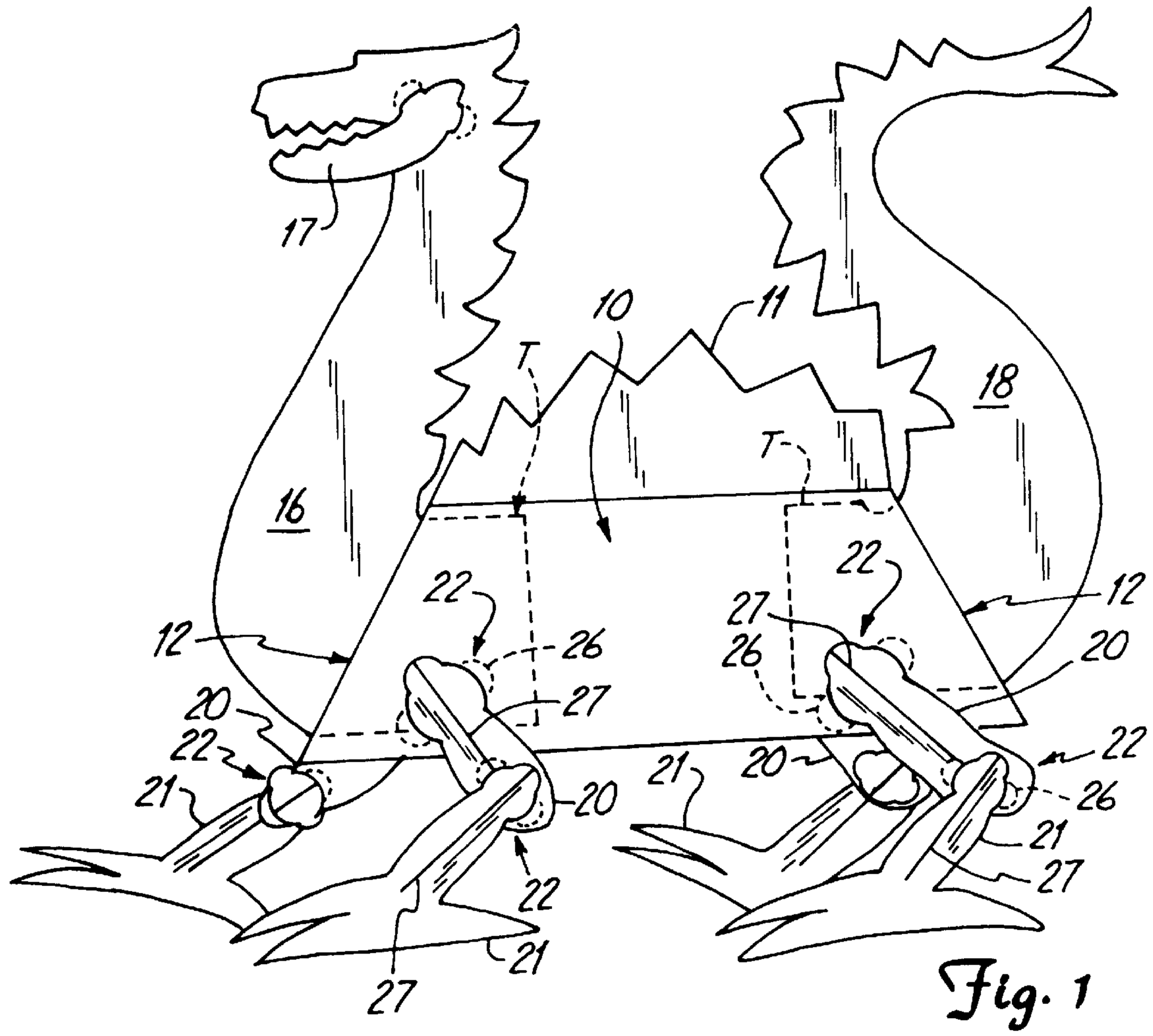

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Fig. 1

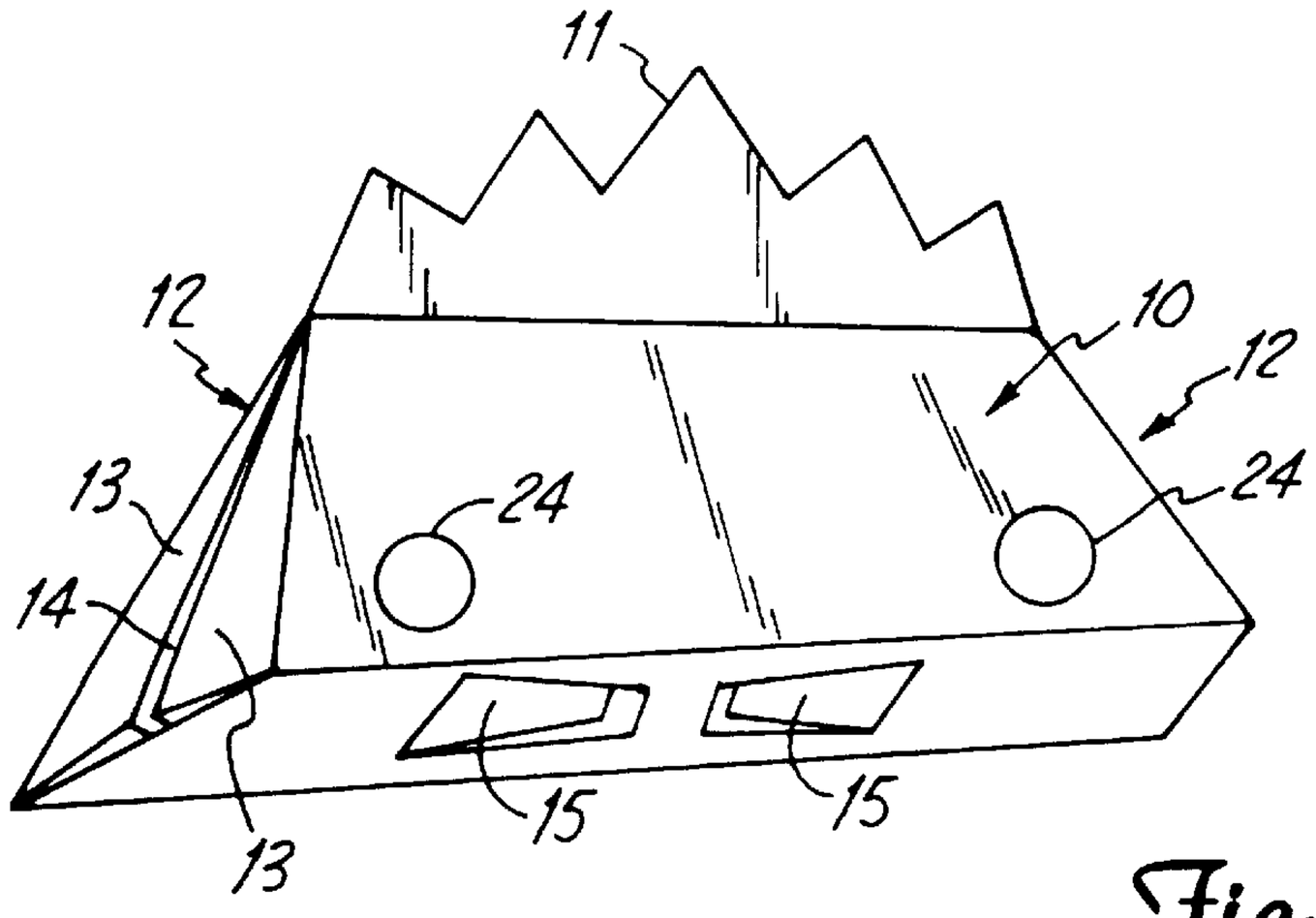
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Fig. 2

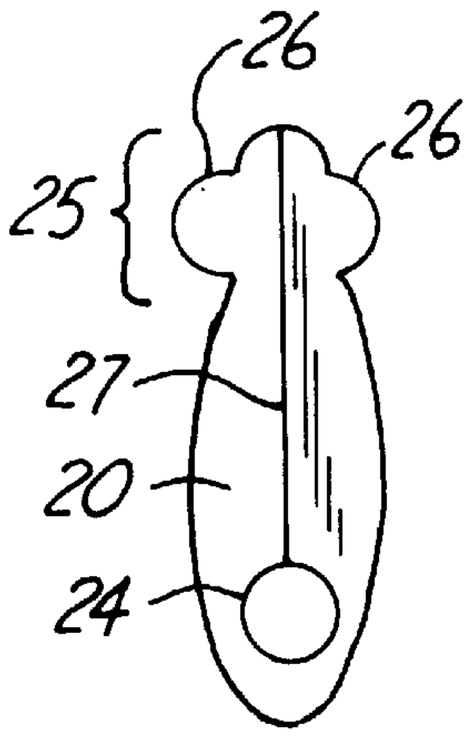


Fig. 3

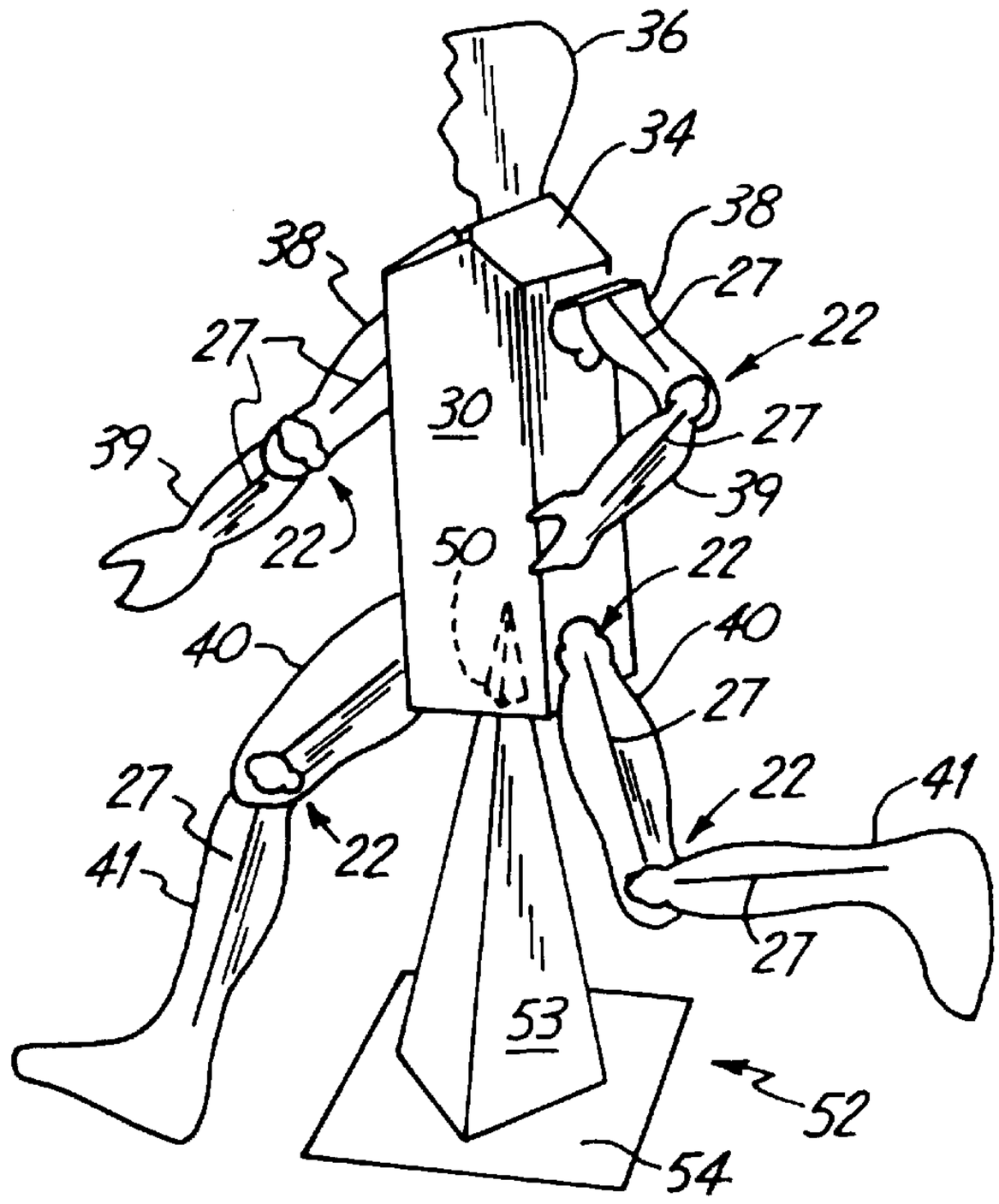


Fig. 5

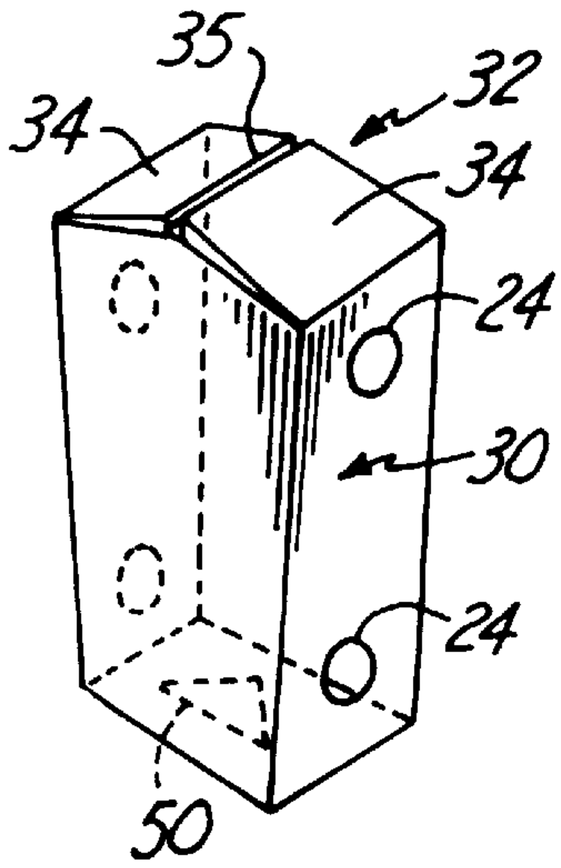


Fig. 6

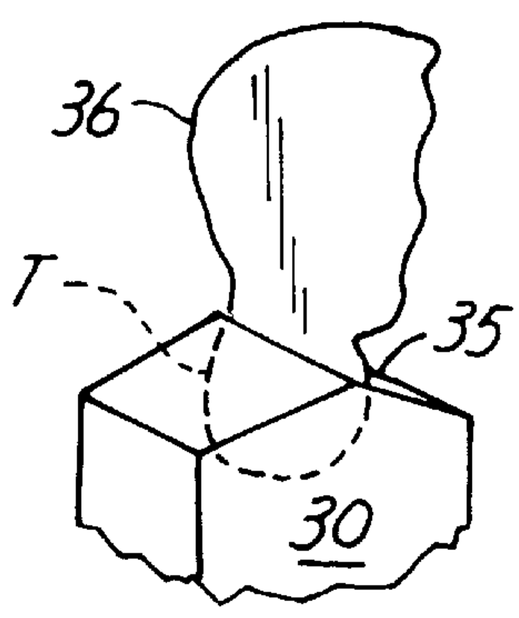


Fig. 7

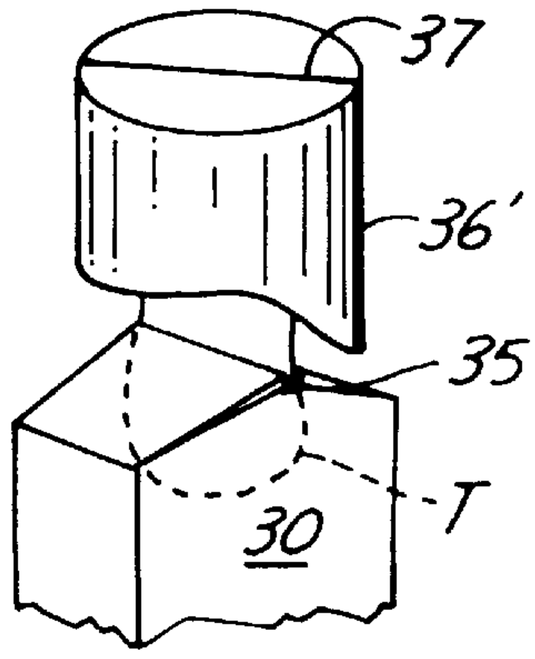
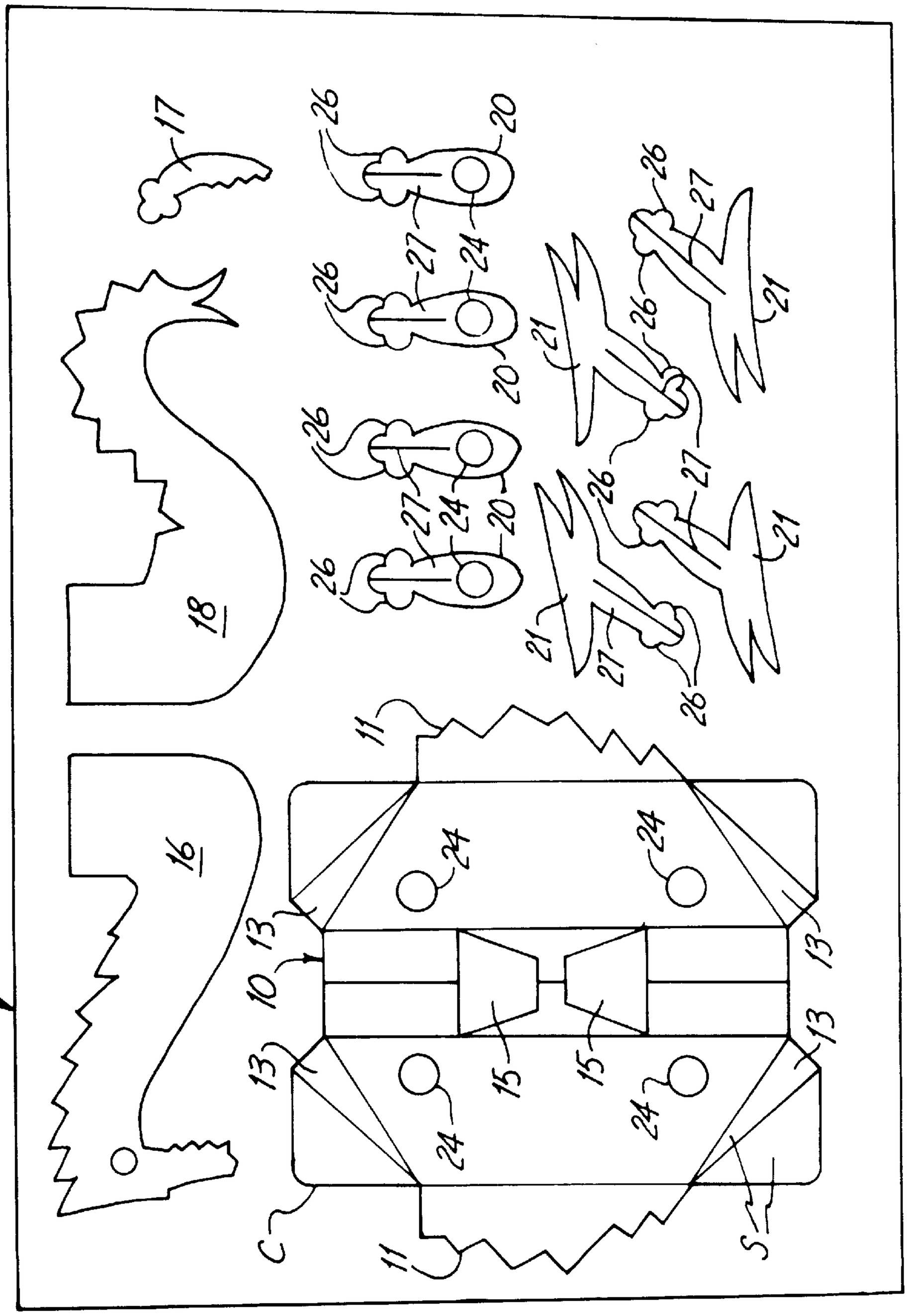


Fig. 8A



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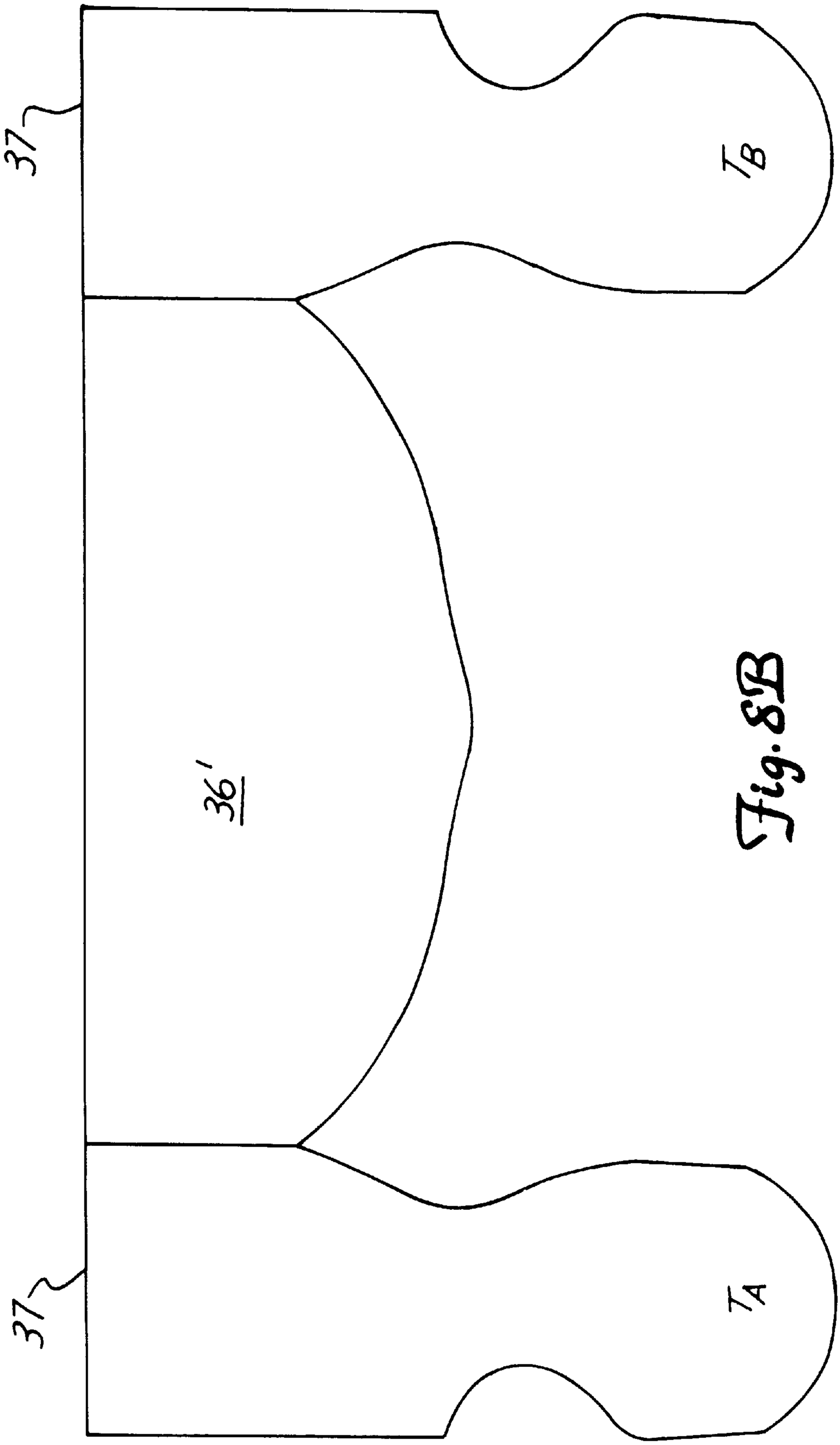
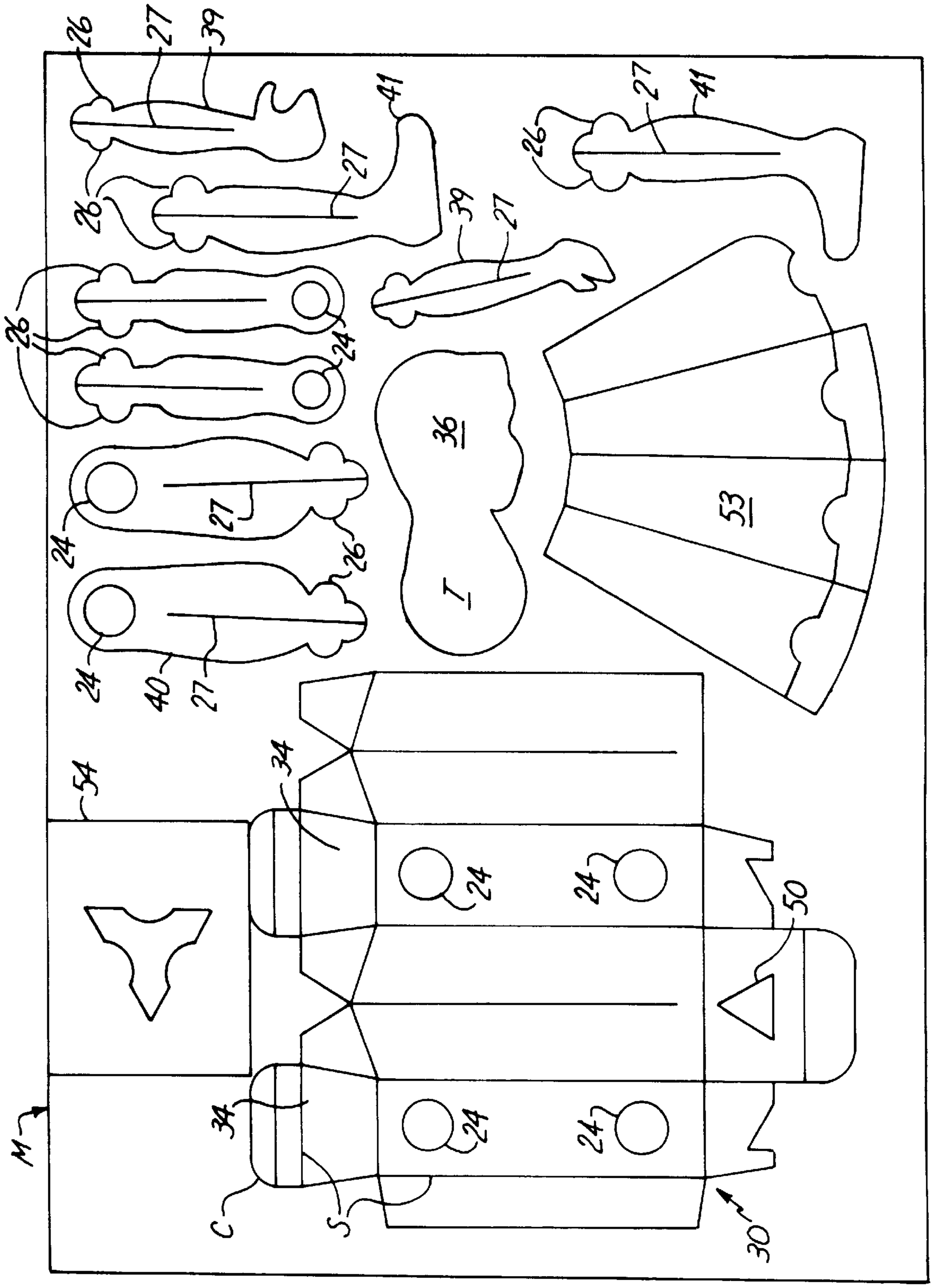


Fig. 8B

Fig. 6



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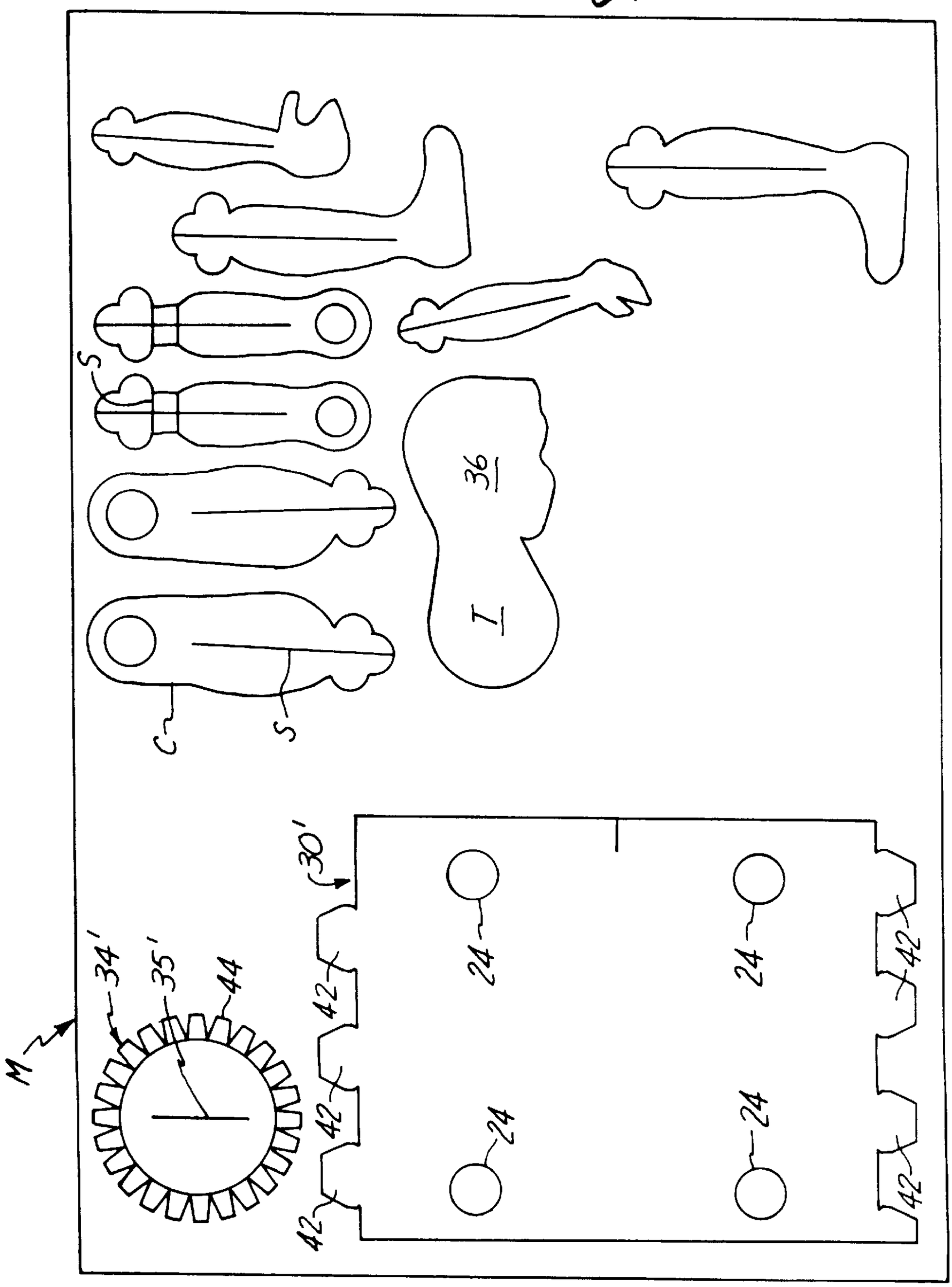

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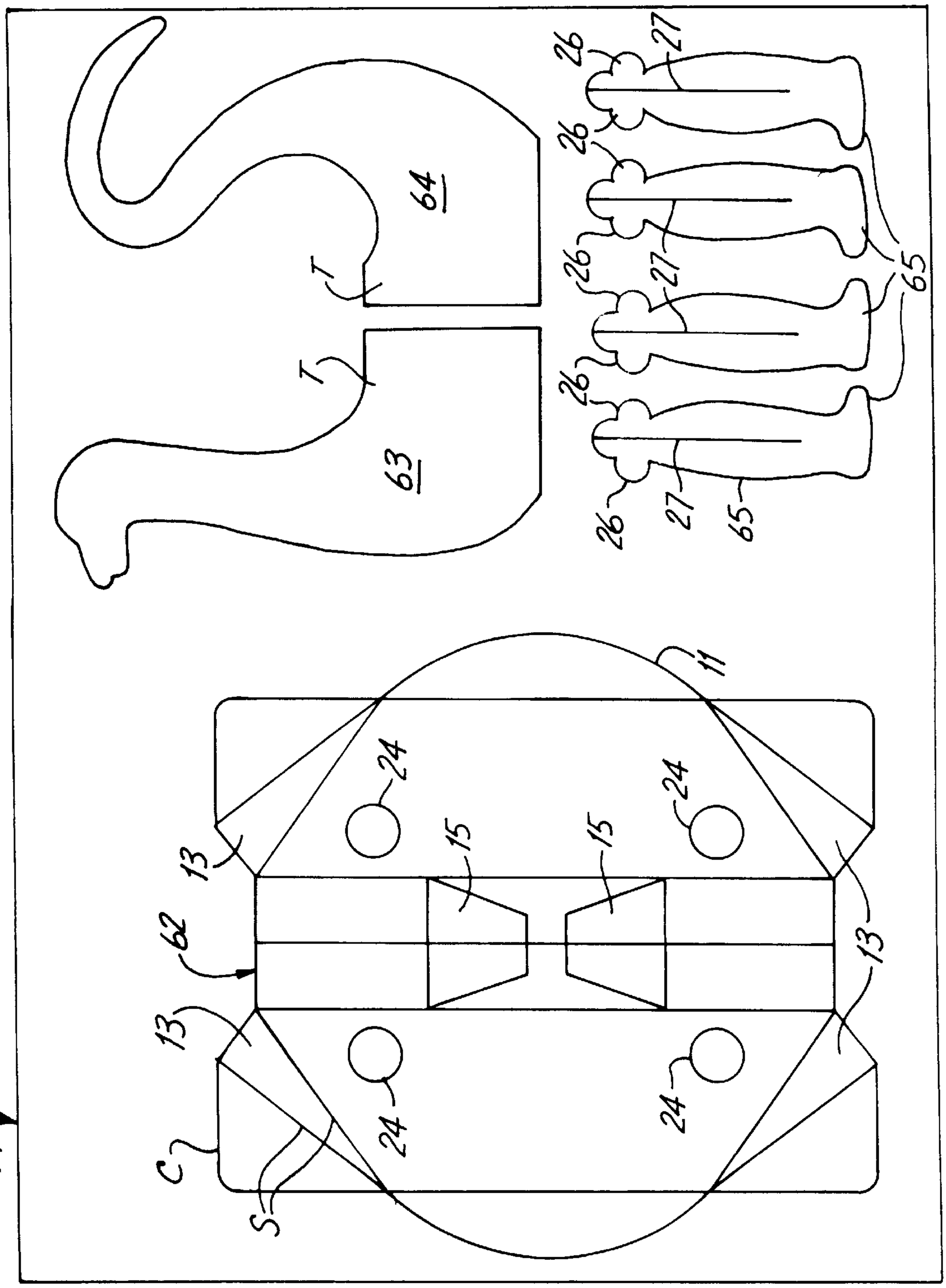

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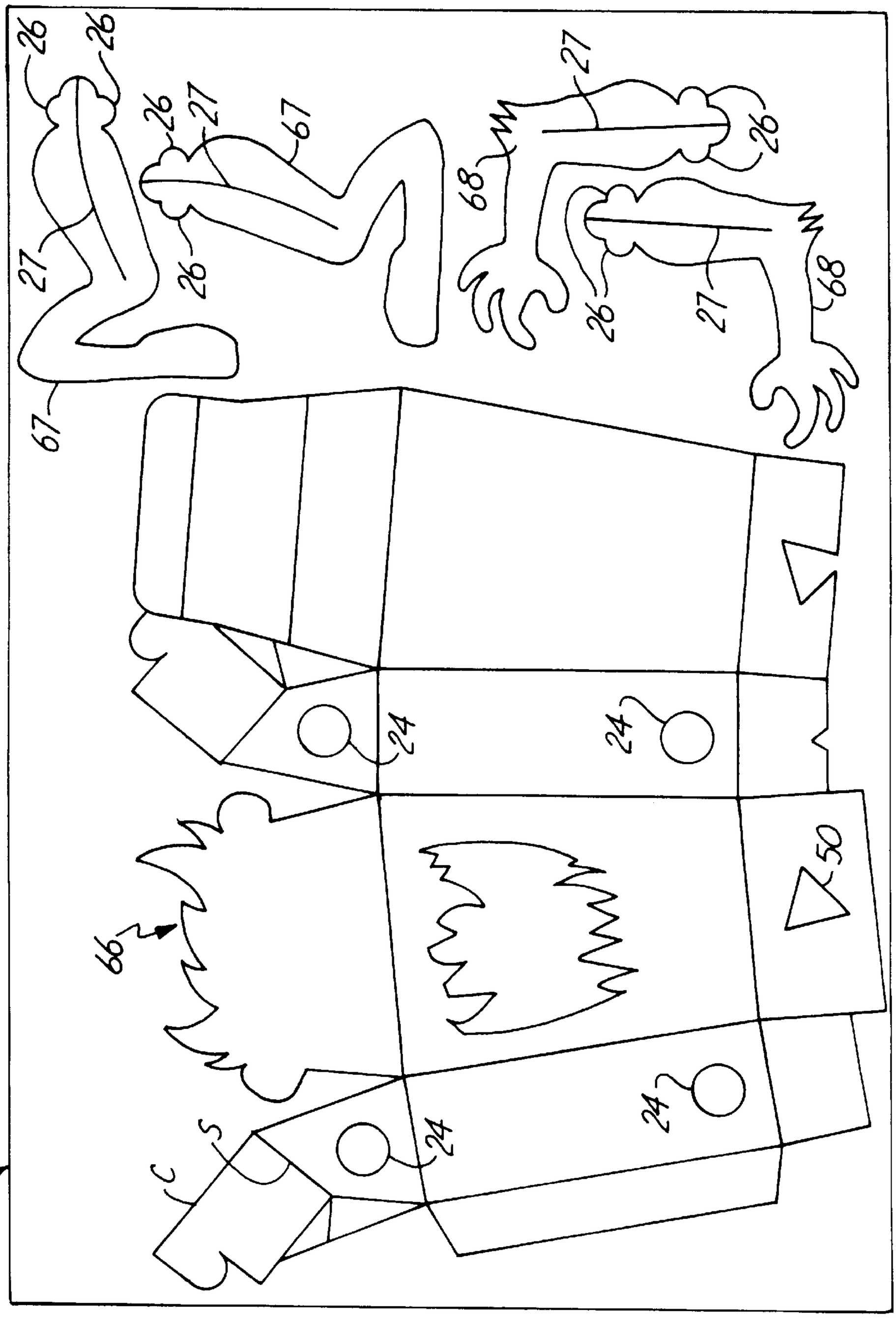


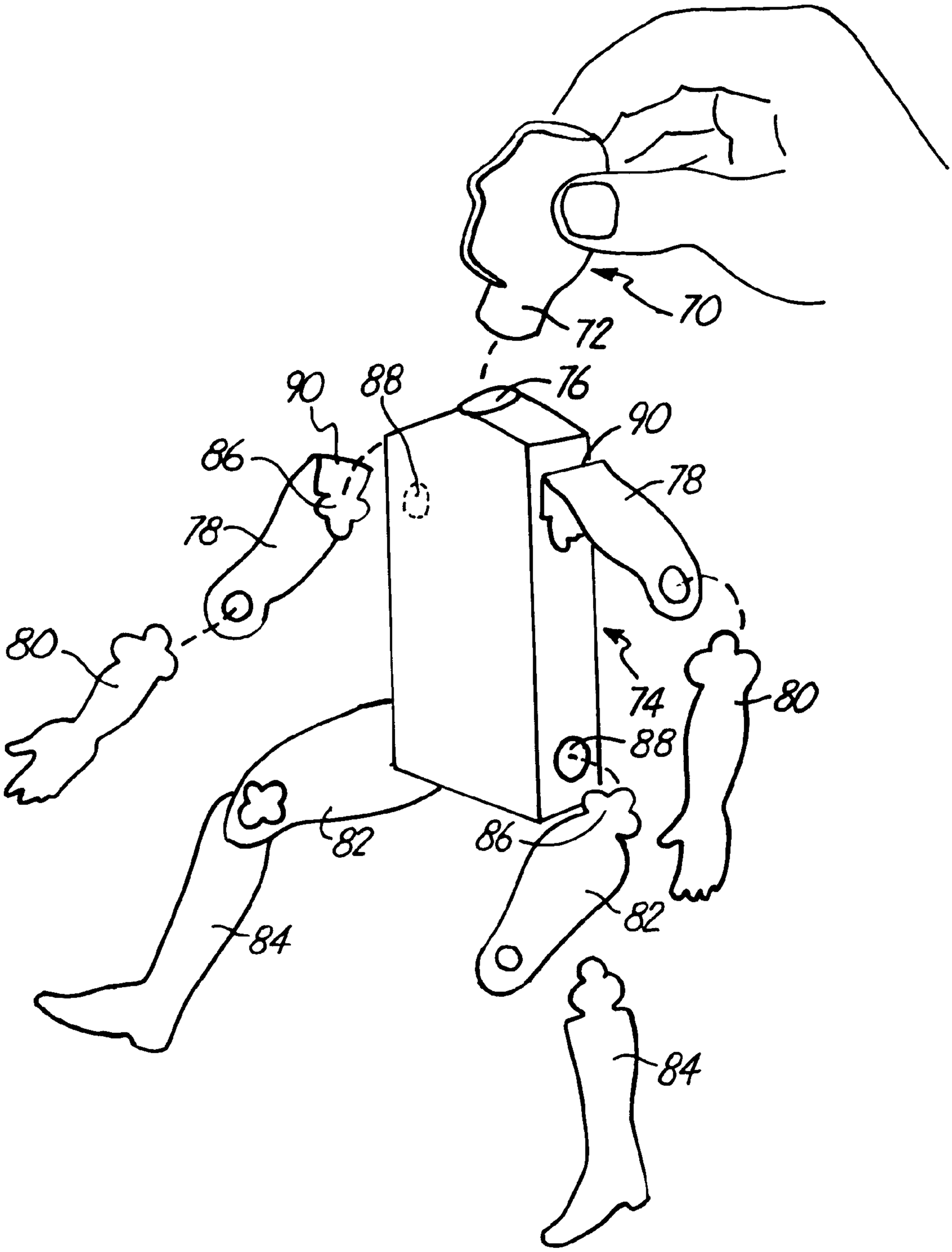
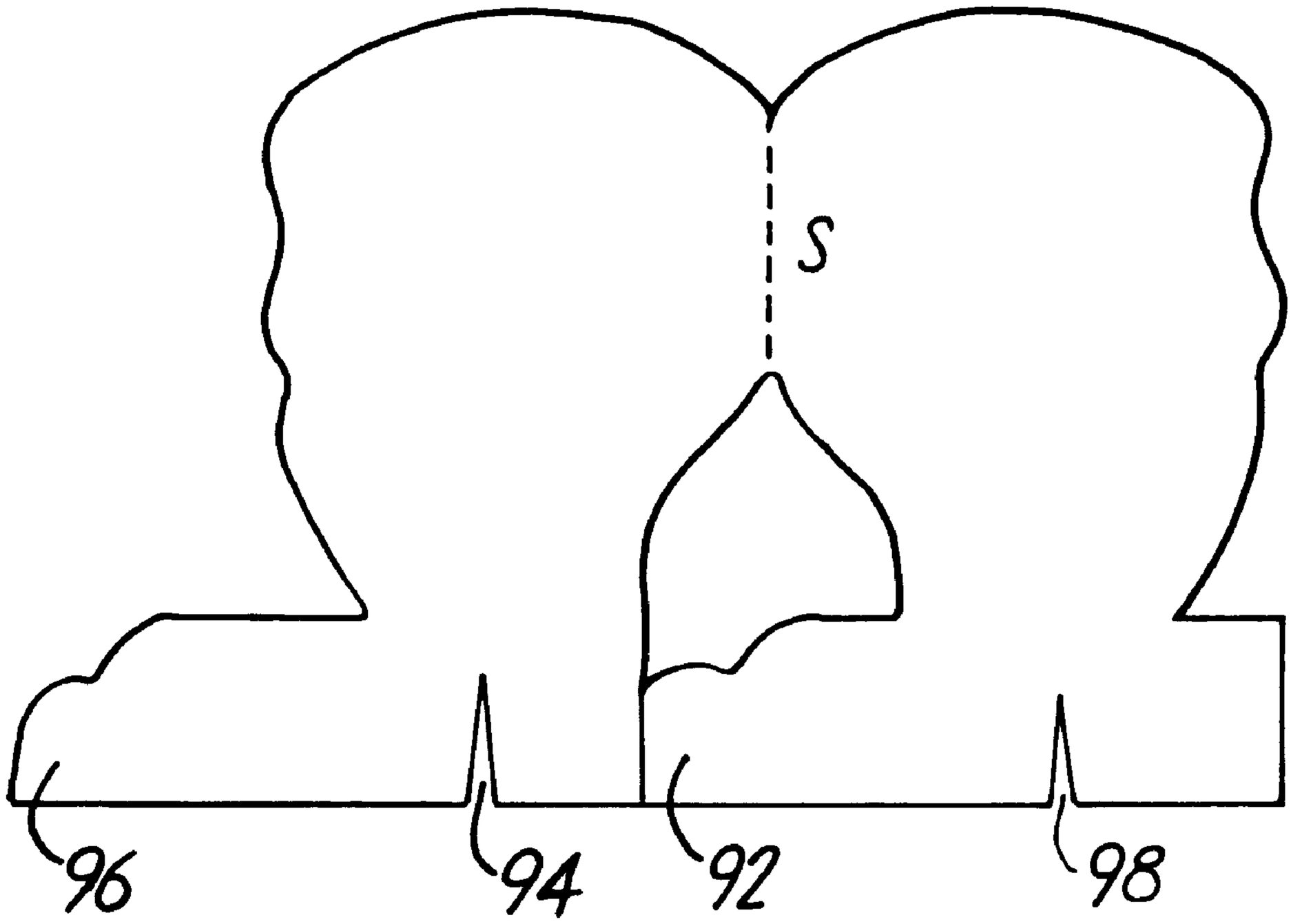


Fig. 13



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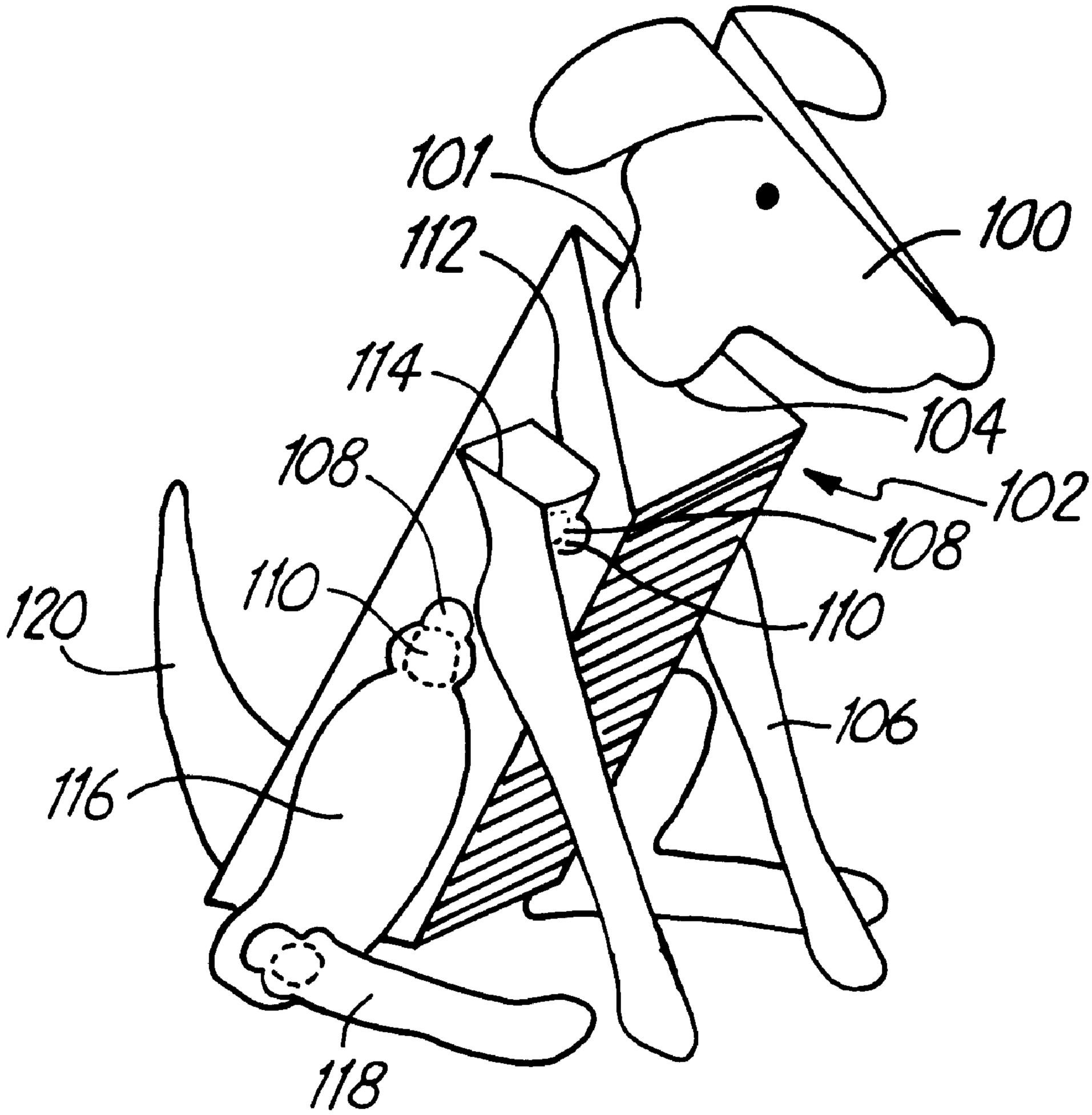

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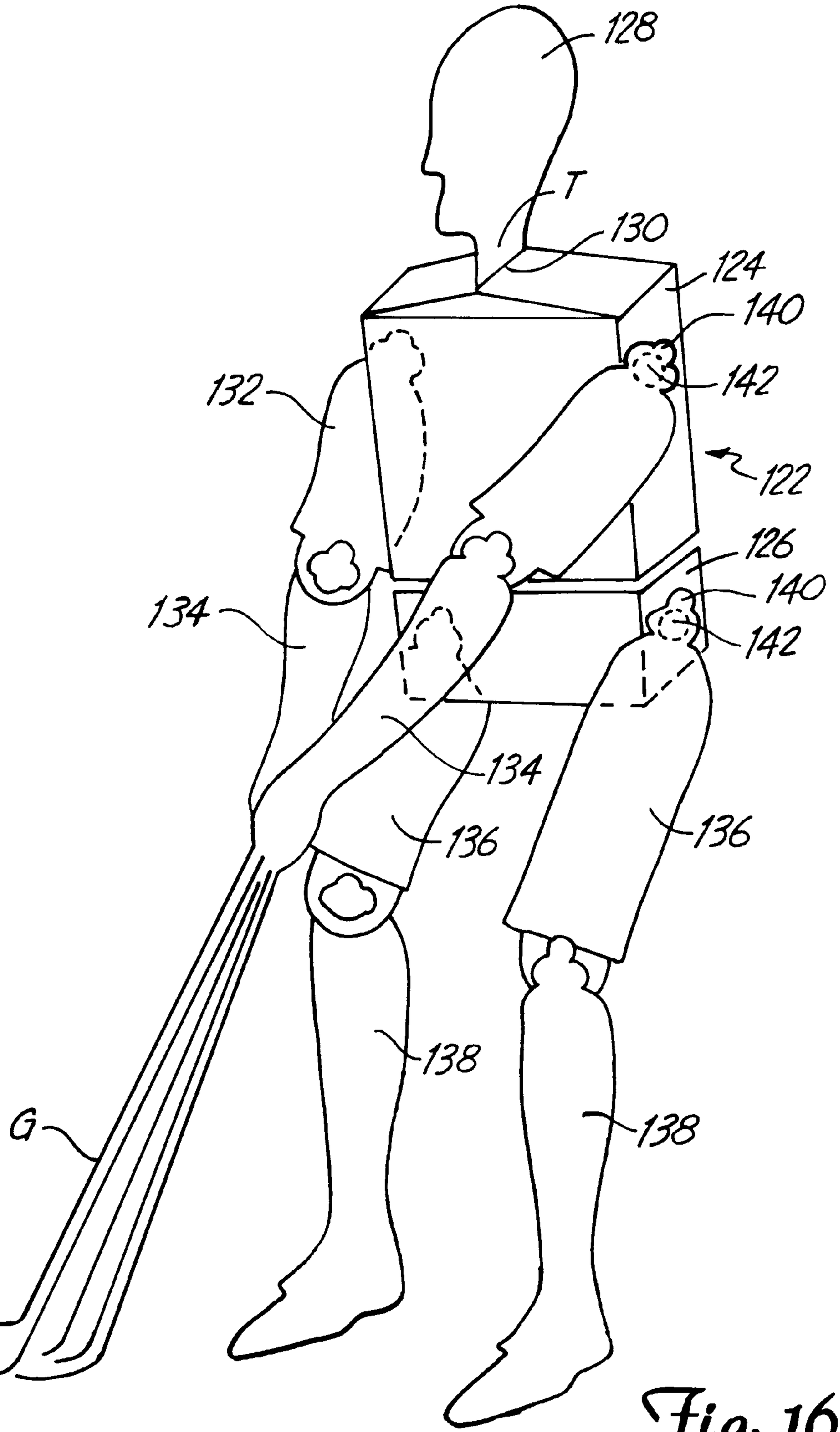
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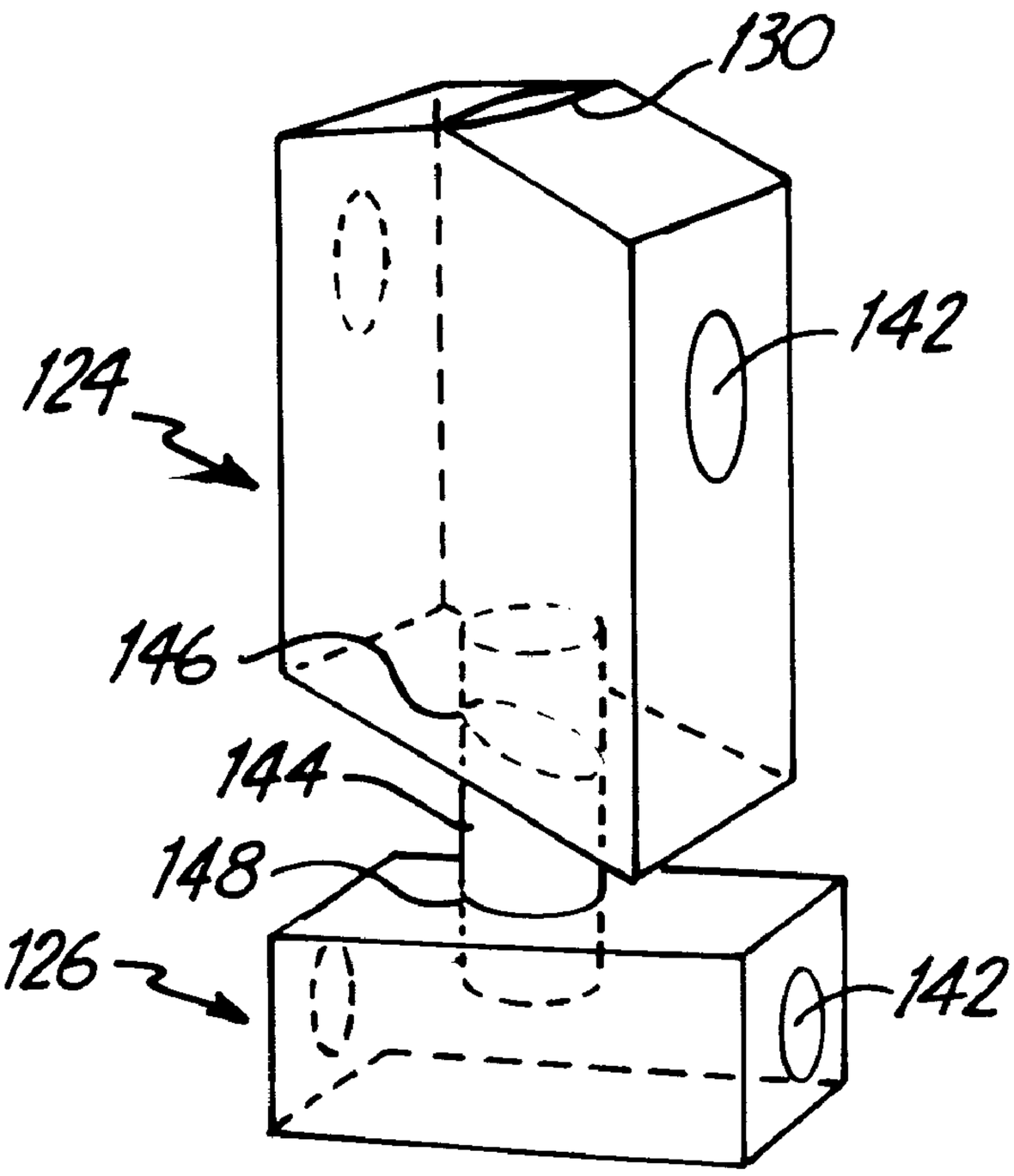
Fig. 16



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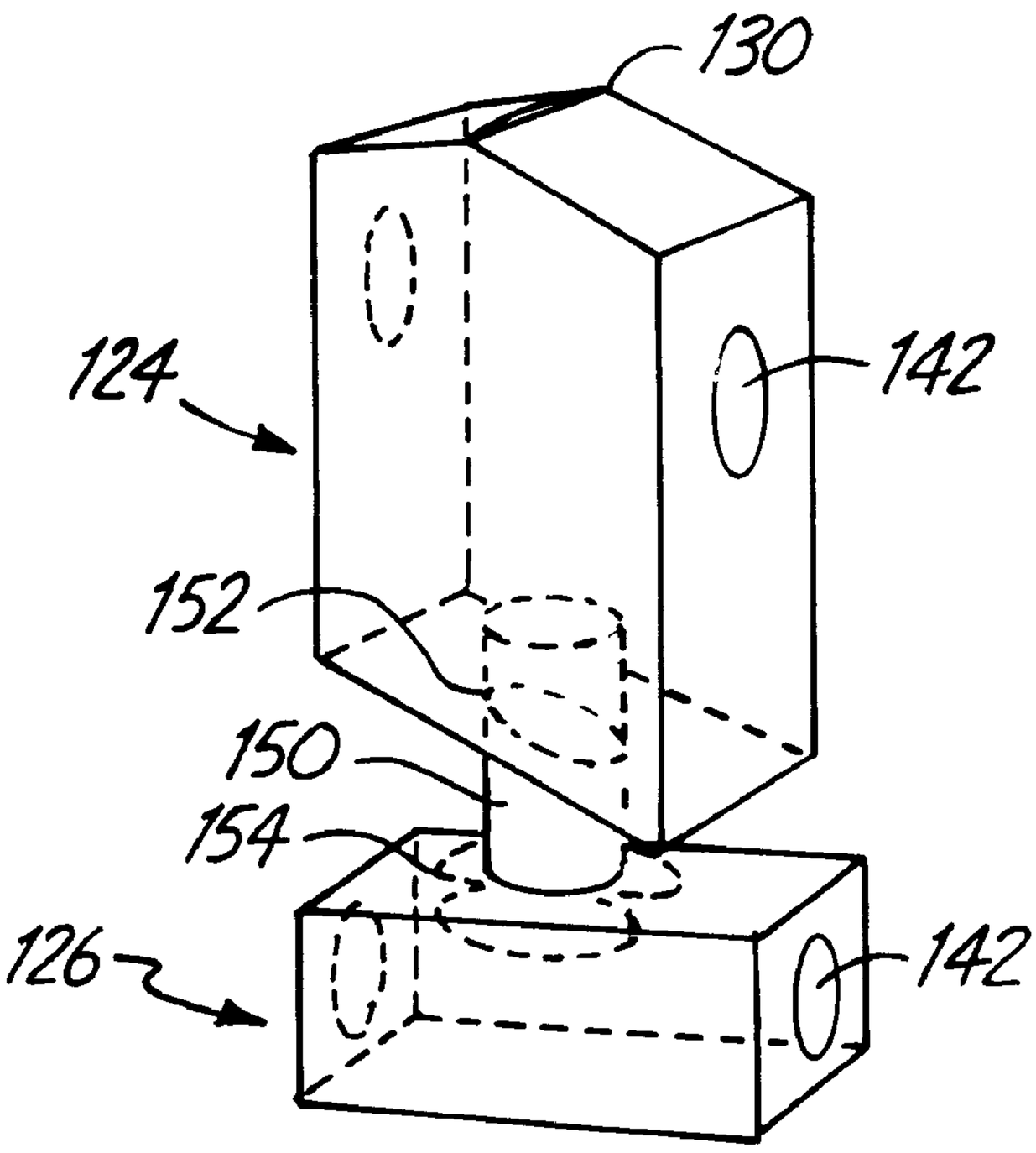

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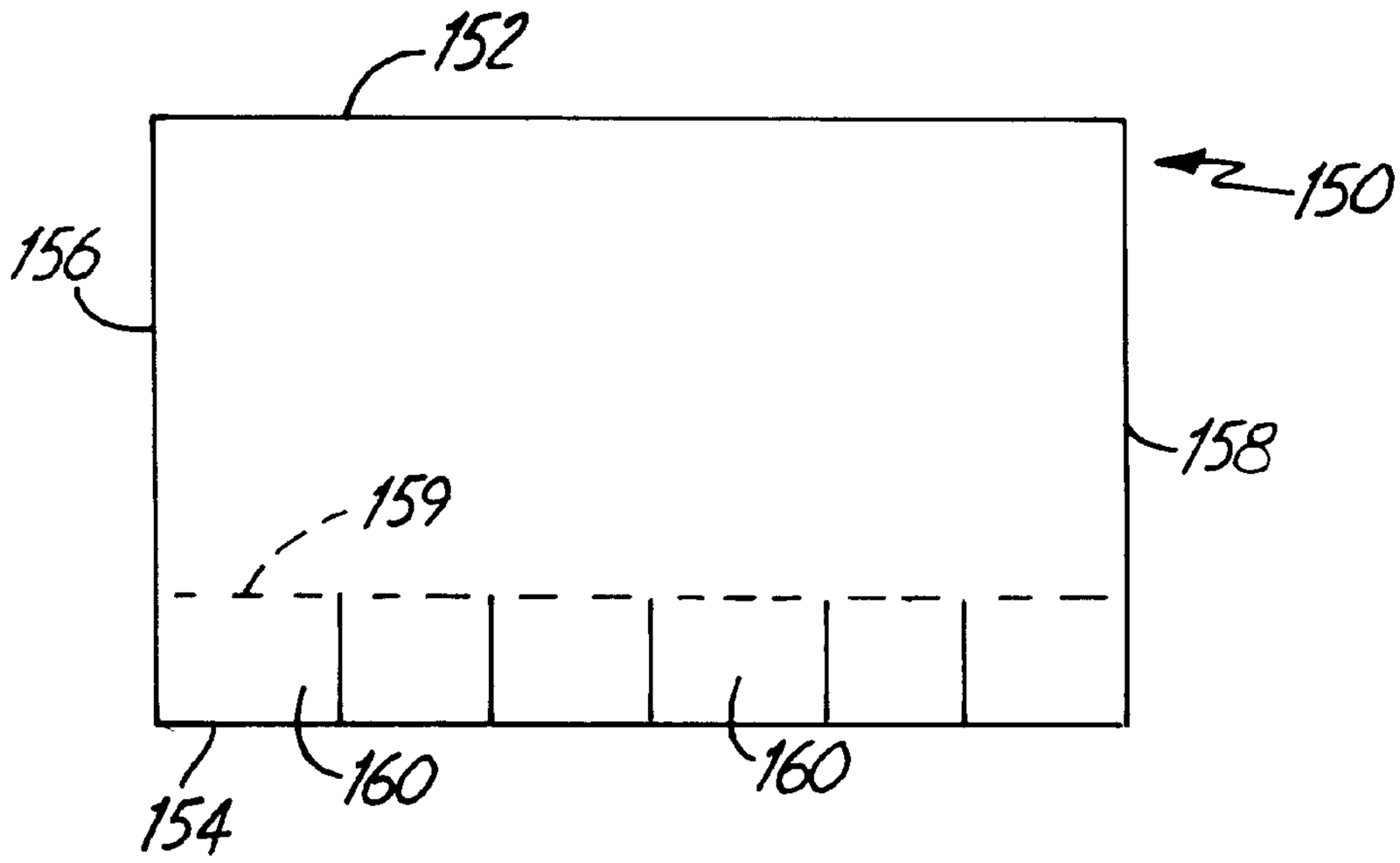

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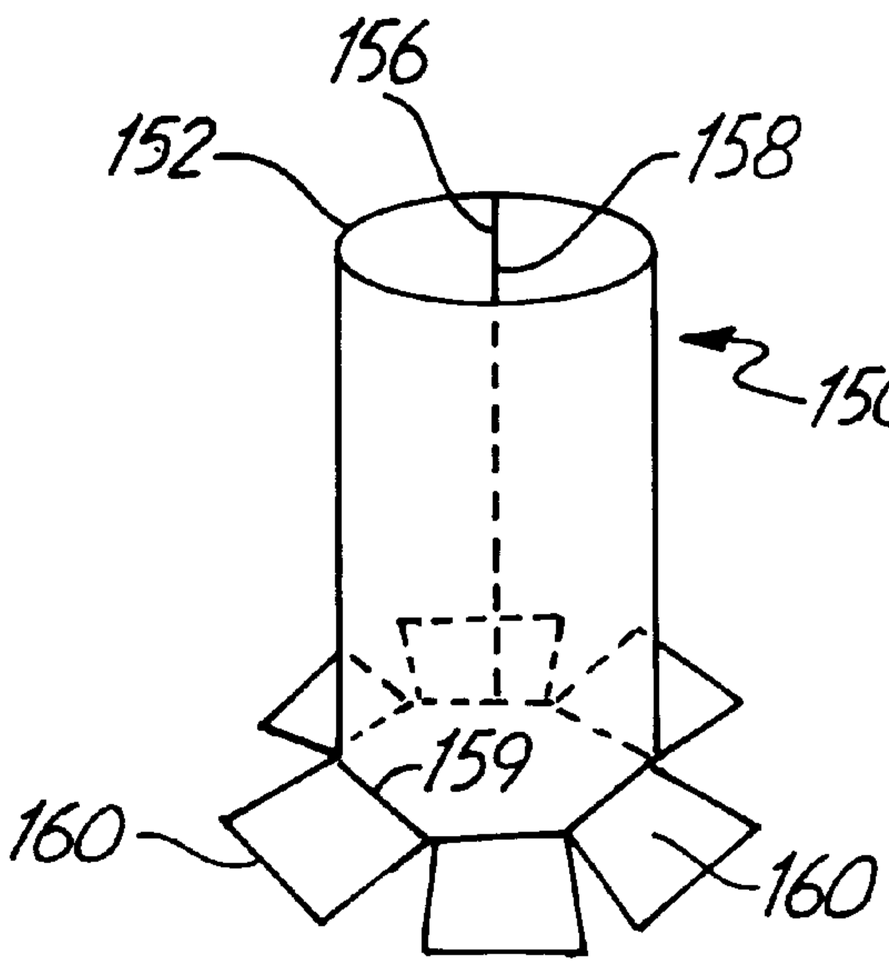

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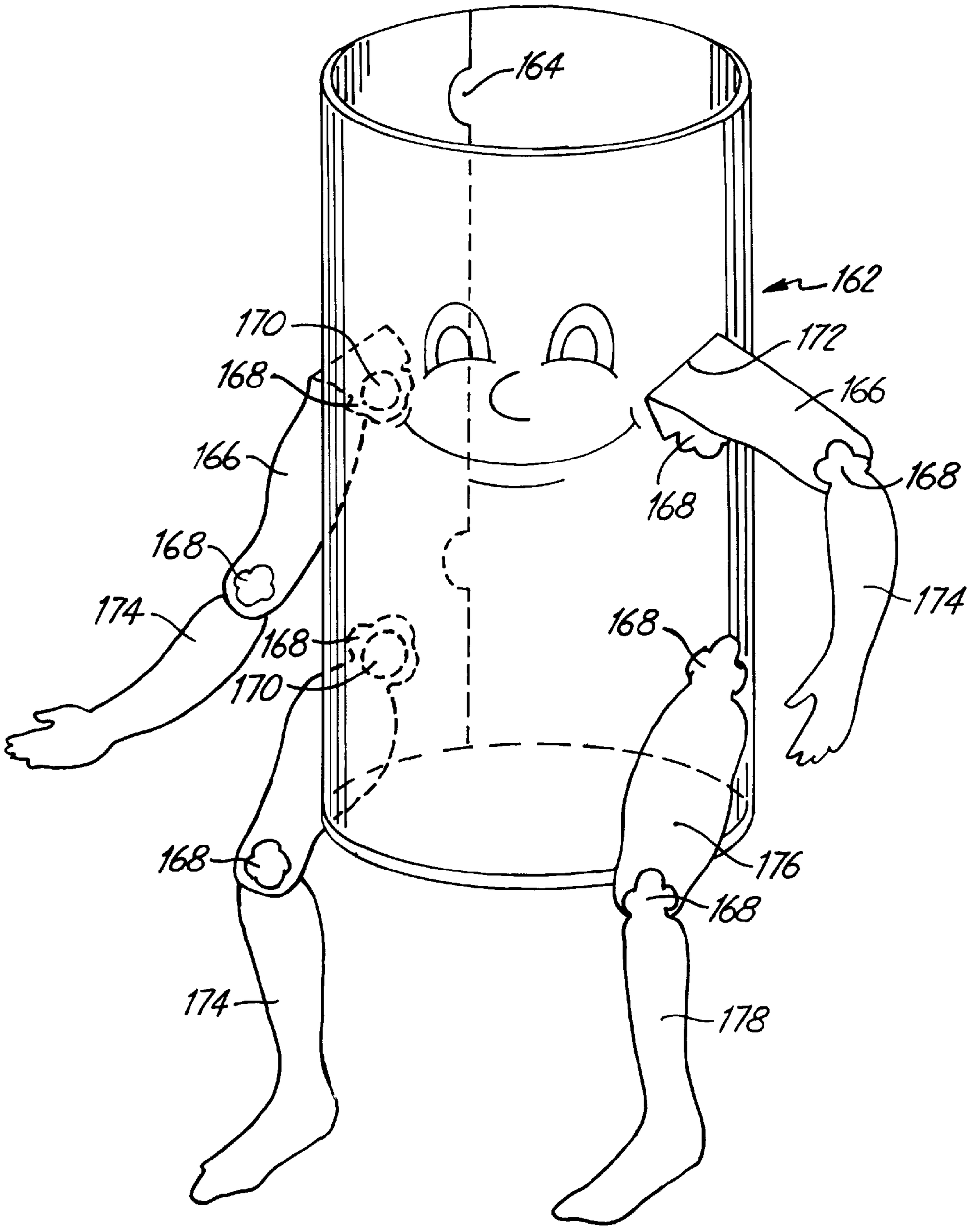
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Fig. 21

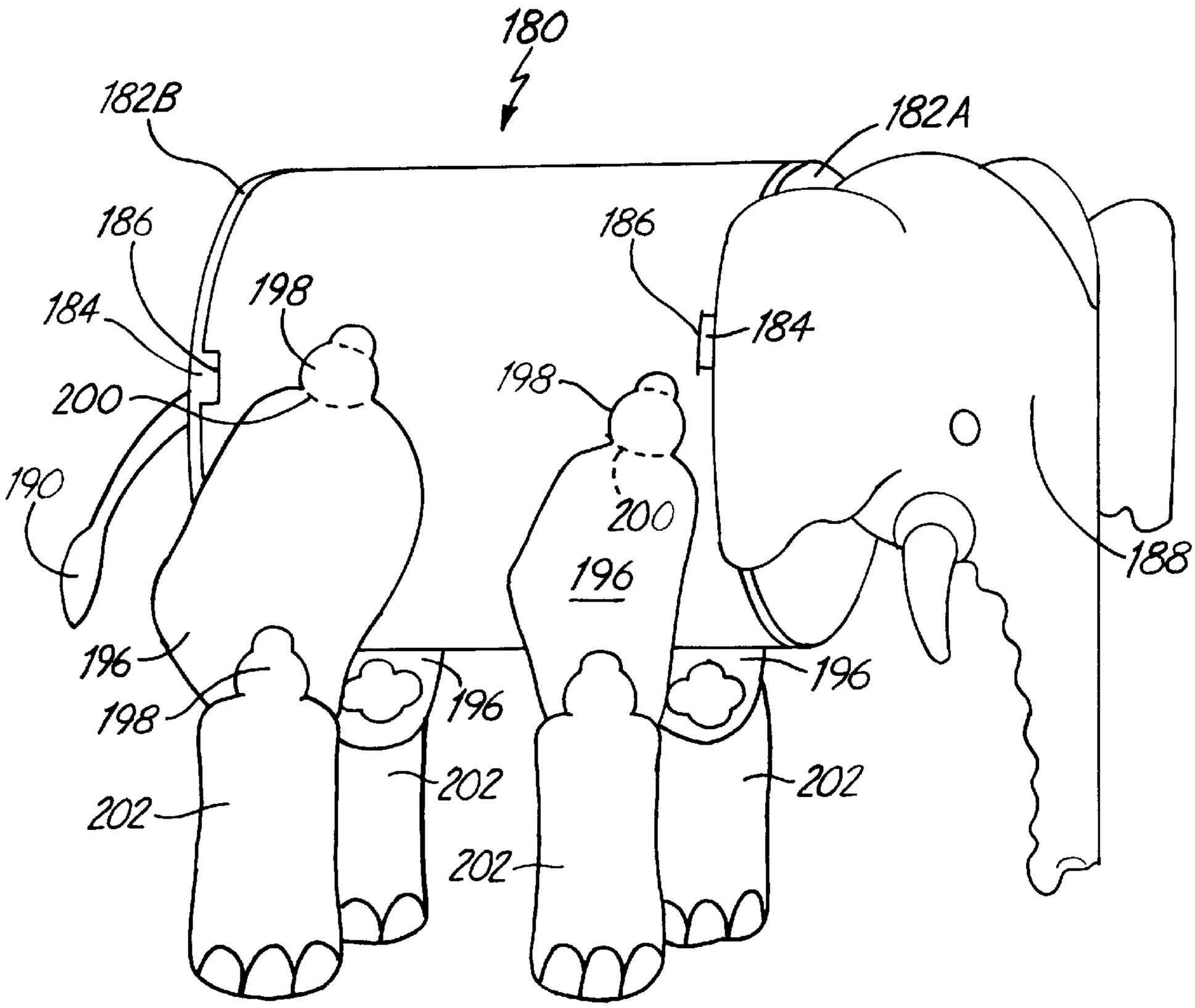
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Fig. 22

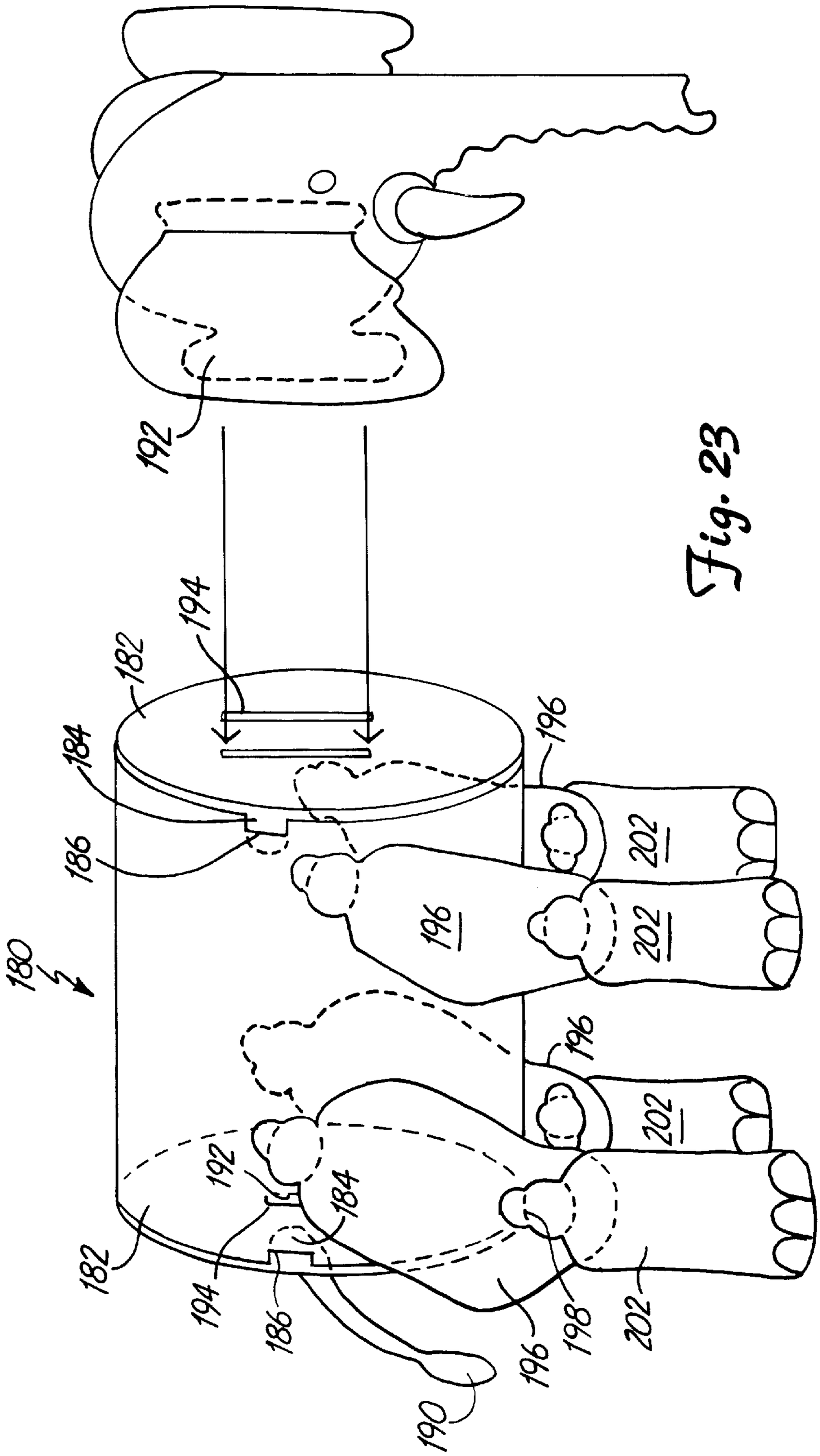


Fig. 23

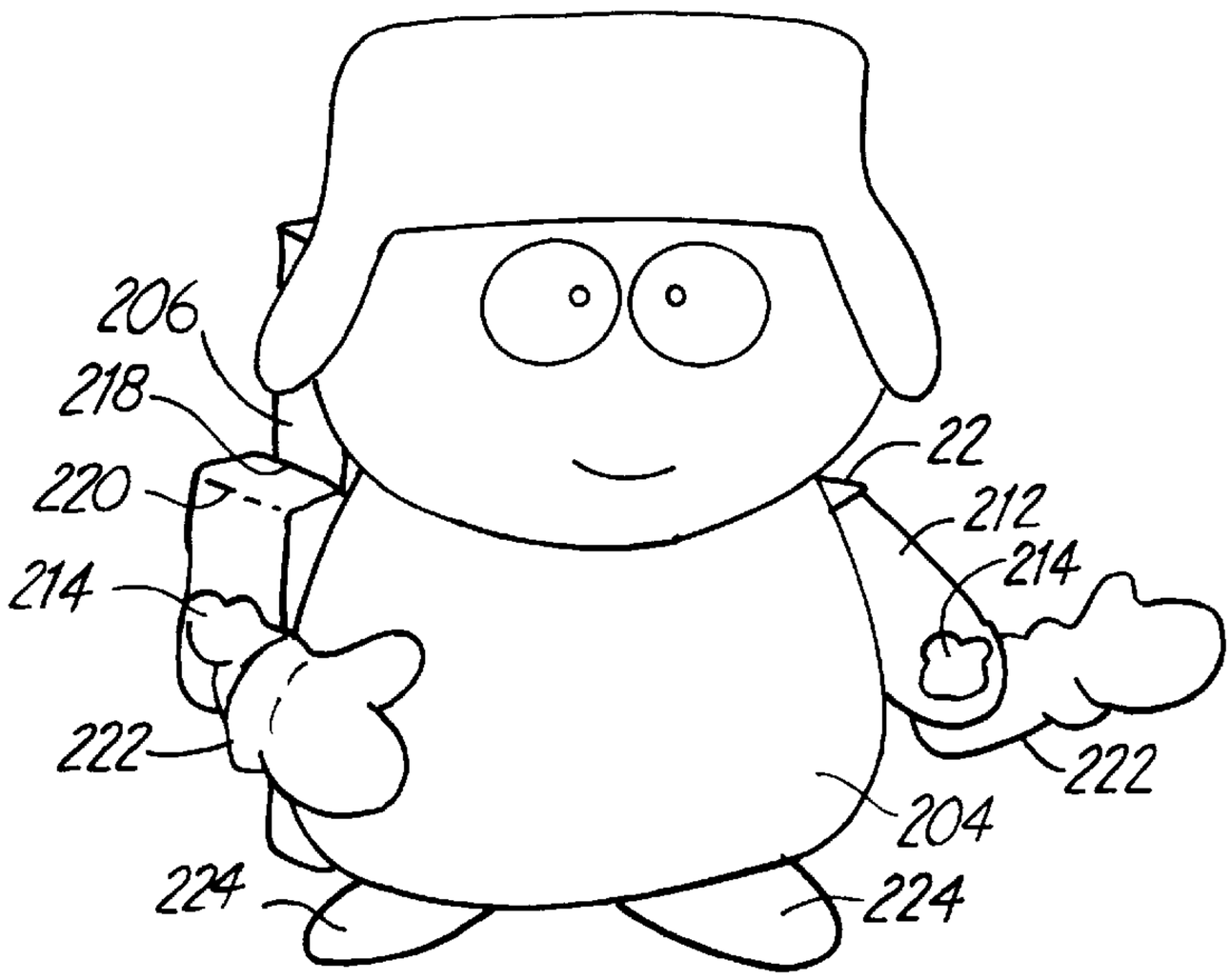
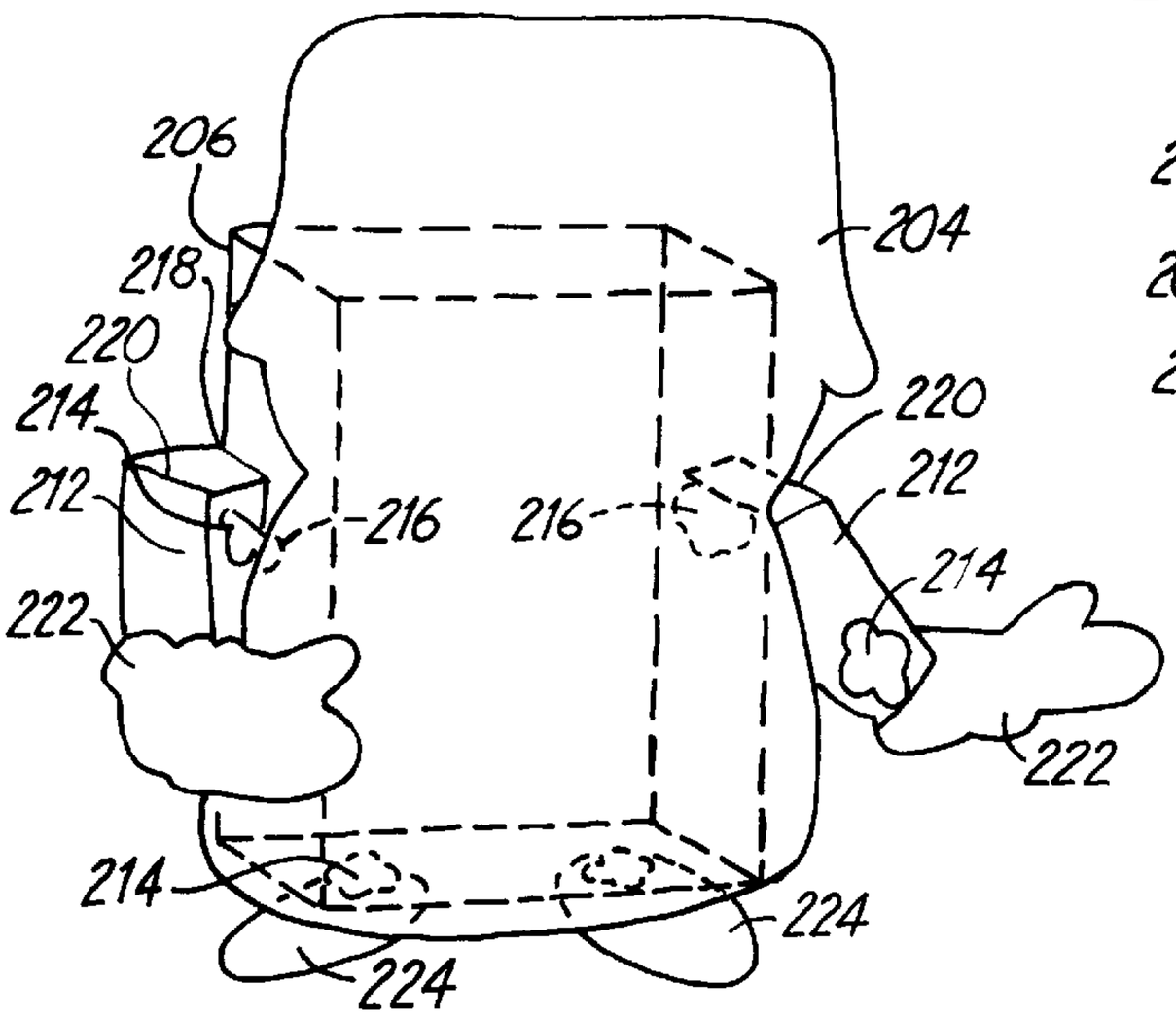


Fig. 24A



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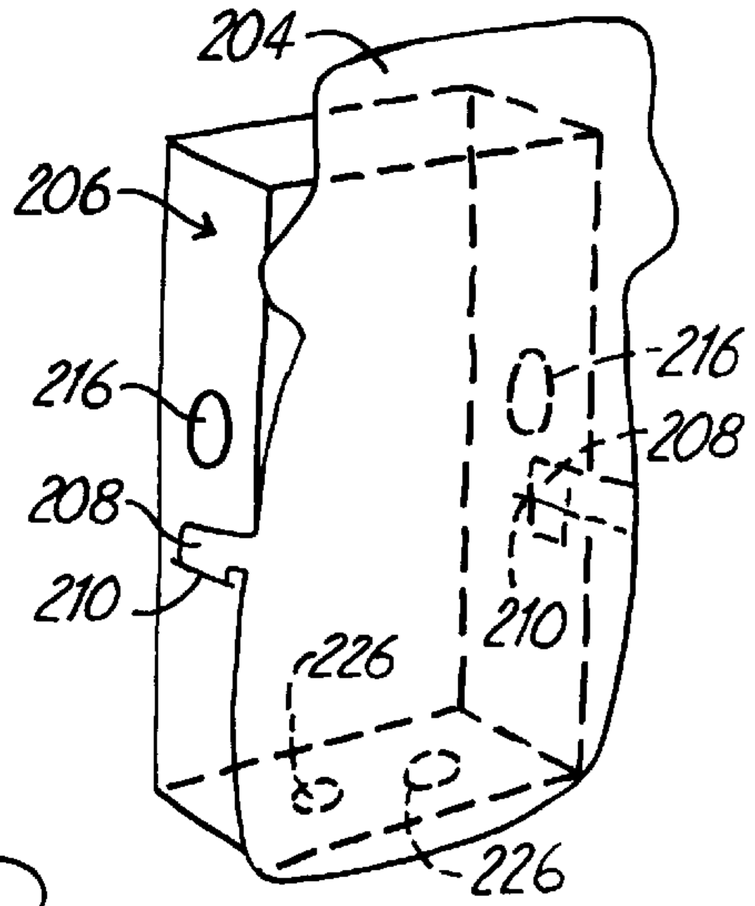

Fig. 24C

THREE-DIMENSIONAL FOLDED CARTON ACTION FIGURES

CROSS-REFERENCE TO RELATED APPLICATION(S)

This is a continuation-in-part of application Serial No. 08/644,046, filed May 9, 1996, now U.S. Pat. No. 5,775,971.

BACKGROUND OF THE INVENTION

The present invention relates to three-dimensional action figures. In particular, the present invention relates to three-dimensional human, animal or cartoon action characters formed from flat sheet material having torsos formed from folded cartons and jointed movable members which are assembled for oscillatory or pivotal movement with no eyelet, rivet or other added support for the movement.

There are many kinds of printed paper characters that are die-cut and tabbed, glued, or riveted together to form three-dimensional characters which represent real or imaginary figures. One group of printed toys includes flat character dolls that are die-cut and punched out of cardboard or similar material and inserted into a base member to allow the doll to stand upright. These dolls often have accessories such as clothes or weapons that are attached by tabs onto the core character. Another group of printed toys includes pop-up novelty cards, such as those shown in U.S. Pat. No. 5,386,656, which incorporate the character doll into an action background setting that gives the flat character an illusion of dimension.

While prior art paper dolls have been successful, they suffer from several deficiencies. Flat paper character dolls that are die-cut or punched out of cardboard or similar material and inserted into a base member to allow them to stand upright are generally presented in a fixed pose which may not be varied by the user, typically a child. The fixed pose limits the creative uses of the characters. The pop-up novelty cards, such as depicted in U.S. Pat. No. 5,386,656 are similarly provided in a fixed pose and are further typically permanently secured to a background action setting. In sum, the fixed poses of the prior art dolls limit the play potential for the characters and thus limit their attractiveness as useful toys. Additionally, the flat paper character dolls and even the pop-up novelty cards do not adequately or convincingly provide a sense of three-dimensionality, and are therefore not as attractive as toys. Finally, the two-dimensionality of the prior art figures also results in figures which are relatively flimsy and unsturdy. Because the figures are made out of thin sheet material which is typically flexible or bendable, the figures tend to bend and fold easily. The flexibility of the figures greatly reduces their durability and stability, and thus reduces their usefulness as toys.

Action figures which utilize movable joints are also known. For example, U.S. Pat. No. 2,365,098 discloses a cardboard action figure with a movable joint. However, the cardboard figures disclosed in U.S. Pat. No. 2,365,098 generally display only a two-dimensional quality, like the flat paper characters and pop-up novelty figures described above. In particular, the figures disclosed by U.S. Pat. No. 2,365,098 are assembled from sections of cut or punched out cardboard sections held together by friction and locking joints. In order to stand, the figures have a general inverted U or V-shape which gives them sufficient width to stand when placed on a table or other supporting surface. However, the figures are only viewable from the sides of the figures, and not the front or rear. If viewed from the front or rear, the figures appear only as two spaced-apart pieces of cardboard, and it is not possible to discern who or what the character is. Essentially, U.S. Pat. No. 2,365,098 replaces the base member of the flat paper character dolls with slightly spaced identical images of the figure to provide sufficient width to allow the figure to stand.

The joints used to allow movement in the figures of U.S. Pat. No. 2,365,098 utilize a slit in the stationary member and a radial slit in the movable member, such that the slit in the movable member interlocks with the slit in the stationary member and thereby allows the movable member to pivot relative to the stationary member. However, the joint of U.S. Pat. No. 2,365,098 only allows a limited range of movement for the movable member. If the relative rotation of the members exceeds a predetermined degree of rotation, the members become disengaged. Clearly, disengagement of the movable members (typically arms and legs) is not conducive to use of the character.

SUMMARY OF THE INVENTION

Given the problems and limitations of the prior art, a need exists for toy action characters formed of sheet material which provide an improved three-dimensional appearance regardless of the angle from which the character is viewed. There is also a need for a joint for use with such characters which allows movable members such as arms and legs to pivot freely (i.e., 360 degrees) without causing disengagement of the members. Further, a design which provides greater rigidity to the cardboard action characters is needed, to provide the characters with greater durability and stability.

The present invention provides three-dimensional toy characters formed of sheet material. The toy characters have three-dimensional "folded carton" torso members, formed of folded sheet material, and movable members formed of sheet material which are attached to the torso member by means of a novel joint.

The folded carton torso member provides a three-dimensional appearance regardless of the angle from which a character is viewed, and further allows the character to assume a wide variety of shapes.

The joint allows the movable members to pivot freely relative to the torso member, without causing disengagement of the members, and utilizes a crease in the movable member to urge the movable member into contact with the torso member. The joint utilizes a unique head portion having at least two tab members which engage a circular opening in the torso member. In addition, the construction of the characters of the present invention creates greater structural rigidity which gives the characters greater durability and stability.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a side elevational view of a dragon character utilizing a folded carton torso and the joint of the present invention.

FIG. **2** is a perspective view of the folded carton torso member of the character of FIG. **1**.

FIG. **3** is an elevational view of a movable member illustrating the head portion of the joint.

FIG. **4** is a plan view of unassembled and unfolded components of the dragon character of FIG. **1**.

FIG. **5** is a perspective view of a human character utilizing a folded carton torso and the joint of the present invention.

FIG. **6** is a perspective view of the folded carton torso member of the character of FIG. **5**.

FIG. **7** is a perspective view of a head for a human character.

FIG. **8**A is a perspective view of an alternative head for a human character.

FIG. **8**B is a plan view of an unfolded and unassembled three-dimensional head for a human character, as in FIG. **8**A.

FIG. **9** is a plan view of unassembled and unfolded components of the human character of FIG. **5** having a rectangularly-shaped torso.

FIG. **10** is a plan view of unassembled and unfolded components of a human character having a cylindrically-shaped torso.

FIG. **11** is a plan view of unassembled and unfolded components of a dinosaur character.

FIG. **12** is a plan view of unassembled and unfolded components of a cartoon character.

FIG. **13** is a perspective view of a human character with a rotatable head.

FIG. **14** is a plan view of an unassembled rotatable head.

FIG. **15** is a perspective view of a dog character with a rotatable head.

FIG. **16** is a perspective view of a human character with a two-section rotatable torso.

FIG. **17** is a perspective view of a two-section rotatable torso showing a cylindrical connector between the torso sections.

FIG. **18** is a perspective view of a two-section rotatable torso showing an alternative connector.

FIG. **19** is a plan view of the unassembled connector of FIG. **18**.

FIG. **20** is a perspective view of the assembled connector of FIG. **18**.

FIG. **21** is a perspective view of a character without a separate head.

FIG. **22** is a perspective view of an elephant character with a separate head and tail.

FIG. **23** is a perspective view showing the assembly of the elephant character of FIG. **22**.

FIGS. **24**A–**24**C are perspective views of a cartoon character, showing a printed facade attached to a pre-formed carton torso.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

As shown in the Figures and described below, the present invention relates to three-dimensional human, animal or cartoon action characters having a folded carton torso formed from flat sheet material, as well as jointed movable members which are assembled without eyelets, rivets or other added support. The type of material used to form the characters may include any type of sheet material which may be cut and folded, including, but not limited to, paper, cardboard, plastic, and metal.

In one embodiment, the characters utilize sheet material folded to form a carton, thereby creating a three-dimensional body or torso member. The folded carton representing the body or torso of the character may be formed to any desired shape to simulate the body or torso of the character to be constructed. The folded carton torso may be retained in its folded condition by any means known in the art, including "slot and tab" connections, adhesive tape or glue. Other mechanical fastening means may also be used.

In three-dimensional characters representing persons or animals, the characterization or illusion of movement is provided in the form of jointed and pivotal legs, arms, jaws or other body members, making it possible to move the members to one position or another according to the pose or movement the character is intended to assume or illustrate. In each instance, the folded carton torso member of the three-dimensional character creates sufficient leg spread to allow the character to stand when placed on a table or other supporting surface.

The characters of the present invention may take many different forms, and are limited only by the designer's imagination. Therefore, the specific characters described herein are to be considered examples, and should not be construed as limiting the scope of the invention. Several examples of the types of characters encompassed by the present invention are shown in the Figures. FIGS. **1–4** illustrate a dragon and elements of its construction. FIGS. **5–10** illustrate a human character. FIGS. **11** and **12** illustrate a dinosaur and a cartoon character, respectively, in an unassembled condition. FIGS. **13**, **14** and **16–20** illustrate human characters and components of those characters. FIG. **15** illustrates a dog. FIG. **21** is a fanciful character, while FIG. **22** shows an elephant, and FIGS. **23** and **24** illustrate a cartoon character.

As an example of the construction utilized by the toy characters of the present invention, a dragon character is illustrated in FIGS. **1–4**. As seen in FIG. **1**, the dragon character possesses an elongated torso member **10** formed of a folded carton having a triangular cross-section to approximate an animal torso. The torso member **10** is best seen in FIG. **2**. The folded carton torso member **10** includes a top surface **11** provided with a shape appropriate to the particular character to be represented (in this example, a dragon). The torso **10** includes end portions **12** having folded flaps **13** which form a slot **14** in end portion **12**. Preferably, folded carton torso member **10** is designed to create one or more slots **14** to receive any members (such as head and neck **16** and tail **18**) which are formed of sheet material and which are provided with a tab "T". Cut-outs **15** are provided such that the cutouts outs **15** may be bent into torso **10** to lend additional internal support to torso **10**. To complete the character, the dragon further includes a head and neck **16**, jaw **17**, tail **18**, upper legs **20**, and lower legs **21**. All members of the character are formed of a flat sheet material like the material used to form the torso **10**.

Head and neck **16** and tail **18** are connected to torso **10** by sliding tab portions "T" into slots **14** formed in torso **10**. As best seen in FIG. **2**, the slots **14** in torso member **10** are formed between folded flaps **13** such that tab portions "T" of head and neck **16** and tail **18** are frictionally engaged in slots **14**. Preferably, frictional engagement between tab "T" and slot **14** is sufficient to prevent unintended movement of the member, but also allows repositioning of the member if desired.

The dragon character includes several pivoting members. For example, upper legs **20** are pivotally connected to torso **10** by a joint **22**. Similarly, lower legs **21** are pivotally connected to upper legs **20**, and jaw **17** is pivotally connected to head and neck **16** by the joint **22**.

In considering the joint **22** used to pivotally secure the limbs and other members to the torsos of the characters, the major or stationary member is designated as the supporting member, while the dependent or extending member is considered the movable member. For example, in the joint of upper leg **20** with torso **10**, the stationary member is torso **10**, while the movable member is upper leg **20**. However, the joint **22** does not have to be adjacent the torso member, as

illustrated by the "knee" joint **22** between upper leg **20** (the stationary member in this case) and lower leg **21** (the movable member). Similarly, the novel joint **22** could be an elbow or a jaw or any other joint where pivotal movement is desired. The joint will be described herein by reference to the dragon character of FIGS. **1–4**. However, the description applies to use of the joint **22** in a variety of characters. Several assembled joints **22** are seen in FIG. **1**, while the individual components are best seen in FIGS. **2** and **3**. Each joint **22** includes a circular opening **24** in the supporting member (in this instance torso **10**) at the pivot point of the joint and a movable member (in this example, upper leg **20**) with a head portion **25** designed to interlock with the circular opening **24** in the supporting member **10**. The individual elements of the joint **22** are more easily seen in FIG. **2** (depicting hole **24** in the supporting member) and FIG. **3** (showing head portion **25** of the movable member).

As seen in FIG. **3**, the head portion **25** of the movable member includes at least two tabs or ears **26** for engaging the opening **24** of the supporting member **10** and securing the movable leg member **20** to the supporting torso member **10**. The tabs **26** are preferably diametrically opposed from each other. To assemble joint **22**, the tabs **26** are bent and extended through the circular opening **24** such that they protrude beyond the diameter of the circular opening **24** and secure the movable leg member **20** to the supporting torso member **10**.

Preferably, each movable member is further provided with a crease **27** extending longitudinally along the length of the movable member. The crease **27** provides the movable member with an additional three-dimensional effect by creating a more rounded, life-like movable member. The crease **27** also provides additional stability to the movable member by increasing the stiffness of the movable member. Because the movable member is formed from a flat, often flexible, sheet material, the movable member is more prone to bending or flexing if not supported in some manner. The provision of the longitudinal crease **27** reduces the movable member's ability to flex or bend, and thus provides additional strength and stability to the character. Finally, the crease **27** helps maintain the integrity of the joint **22** by creating a "spring" effect which forces the tabs **26** on the head **25** of the movable member firmly into contact with the circumference of the circular hole **24** in the supporting member. The friction between the supporting member and the movable member helps retain the movable member in a desired position, and prevents the movable member from moving freely in an unintended manner.

The joint **22** as described prevents inadvertent separation of the supporting member **10** and movable member **20** and allows the movable leg member **20** to rotate 360 degrees without disengaging from the supporting torso member **10**. The joint **22** used to secure the movable members to the supporting member does not require any additional support, such as eyelets, rivets or the like. The joint **22** is therefore not only simple and mechanically efficient, but also allows a savings in material and the processing thereof, as a minimum amount of sheet material is required.

Typically, the unfolded torso and movable members may be cut from a single sheet of material, or multiple sheets of material if the size of the character so requires. Preferably, for ease of manufacture, only a single die-cut operation for cutting out the character and accompanying parts is required. As an example, the dragon character of FIG. **1** is shown in flat, uncut and unassembled form in FIG. **4**. The various elements of the character are shown laid out on a sheet of material "M" as they would be laid out for a die-cutting operation. Preferably, the character would also be provided with pre-printed features such as eyes, hair, clothes, etc. which are appropriate to the particular character. The heavy weighted lines, labeled C, indicate where the material is to be cut, while the thinner lines labeled S, indicate score marks where the material is to be bent or folded. As an alternative to die-cutting the elements of the characters, the characters may be printed on the material to be cut out later by the user. For example, the unassembled and unfolded elements could be printed on a cereal box, and could be cut out after the contents of the box have been removed. The cut elements are then assembled as described below.

After cutting out the individual elements of the character, the folded carton torso **10** of the character would typically be assembled first. The torso **10** is folded along the lines "S" into a carton, and retains its three-dimensional shape by use of tabs, adhesive, tape, or other fastening means known in the art. The various movable members, such as upper legs **20** and lower legs **21** would then be attached to the proper stationary members by bending tabs **26** on the respective head portions **25** of the movable members and inserting the tabs **26** through the proper circular opening **24** provided in the stationary member. Other members, such as head and neck **16** or tail **18** are then inserted into slots **14** of torso **10** to complete construction of the character.

In contrast to the dragon character of FIGS. **1–4**, a human character is illustrated in FIGS. **5–10**. As best seen in FIGS. **5** and **6**, the human character utilizes a folded carton torso member **30** having a generally rectangular shape, with a top portion **32** having sloped faces **34** to represent more life-like shoulders. Sloped faces **34** meet to form a slot **35**, for attachment of a head **36**. Head **36** is attached to torso **30** by sliding tab "T" of head **36** into slot **35**, such that tab "T" also creates a neck for the human character (best seen in FIG. **7**). Although FIG. **1** illustrates head **36** as having a flat appearance, other head and neck configurations are possible for human characters. For example, instead of forming head **36** as a flat piece of sheet material with an appropriate profile, the character's head may be provided with a three-dimensional appearance. As seen in FIG. **8A**, a cylindrical head **36'** (or other appropriate shape) with a flat tab "T" which can be slidably received by slot **35** may be used. FIG. **8B** shows the cylindrical head **36'** of FIG. **8A** in an unfolded and unassembled configuration. The three-dimensional head **36'** is created by rolling the flat sheet material into a cylinder and securing neck tab portions T_A and T_B to each other (with tape, adhesive, or the like) to form a supporting structure **37** within cylindrical head **36'**.

The human character further includes upper arms **38**, forearms **39**, upper legs **40** and lower legs **41** which are formed from flat sheet material. Upper arms **38** and upper legs **40** are connected to the torso **30** by the novel joint **22** as described above for the dragon character, while forearms **39** and lower legs **41** are pivotally attached to upper arms **38** and upper legs **40**, respectively.

The elements of the human character of FIG. **5** are shown in FIG. **9** as they would be laid out on a sheet of material "M" for a die-cutting operation. As described above with reference to the dragon character, the toy is assembled by cutting out the various elements, assembling the folded carton torso **30**, and attaching the various limbs to the torso **30**.

It should be recognized that the folded carton torso **30** may take on a variety of shapes. The folded carton torso member **30** may be formed in any shape which approximates the torso of the character to be represented. For example, if

a human torso having a rectangular cross-section is not desired, the torso member **30** of the human character could be formed with any number of cross-sectional shapes, such as a cylindrical shape. As an example, FIG. **10** shows an uncut and unassembled human character similar to that in FIG. **9**, but having a cylindrical torso member **30'** and shoulders **34'**. Cylindrical torso **30'** is assembled by rolling the sheet material into a cylinder and securing the carton with tabs **42**, adhesive, or the like. Shoulders **34'** are positioned adjacent an end of torso **30'** and tabs **44** are secured to torso **30'**. Shoulders **34'** are provided with a slot **35'** for receiving tab "T" of head **36**.

Additional features may be added to the characters to increase their play value. As seen in FIGS. **5** and **6**, the play value of the character may be increased by providing the torso member **30** of the human character with a triangular opening **50** opposite head **36**. The opening **50** fits a mating stand **52** included with each character. When assembled, the stand **52** comprises a pyramidal mounting device **53** on a base **54** which interacts with the triangular opening **50** in the character's torso **30** to allow the character to rest on the stand **52** for display purposes while its limbs are posed in various manners as illustrated in FIG. **5**. Although the triangular shape of opening **50** and mating stand **52** is preferred for ease of construction, alternatively shaped stands, such as rectangular or circular, are also possible and are considered within the scope of the present invention.

Finally, many other types of characters may be created using the folded carton torso and novel joint of the present application. As an example, FIG. **11** depicts an unassembled and unfolded dinosaur character, having a torso **62**, head and neck **63**, tail **64**, and legs **65**. The dinosaur character of FIG. **11** is similar in construction to the dragon character of FIGS. **1–4**, and like elements are similarly numbered. Finally, FIG. **12** illustrates a cartoon character having torso and head **66**, legs **67**, and arms **68**. The cartoon character of FIG. **12** includes an opening **50** for use with a support stand **52** (not shown) as described above in reference to the human character in FIGS. **5–10**. The support stand **52** could be cut from a separate sheet of material, for example, or shared with another character in a set of multiple characters. The characters of FIGS. **11** and **12** are assembled as described for the dragon and human characters, and like elements carry similar reference numerals. As can clearly be seen, the folded carton torso and novel joint of the present application provide a wide variety of play characters, limited only by the designer's imagination.

FIG. **13** illustrates a human character with a head **70** that has a cylindrical neck **72** which fits into circular torso hole **76**. This invention allows the user to rotate the figure's head 360° , allowing for more variations and poses and therefore more possibilities in use. In addition to its ability to turn, the head also possesses a slight roundness which conveys a more realistic, 3-dimensional look. The character further includes upper arms **78**, forearms **80**, upper legs **82** and lower legs **84**. Upper arms **78** are pivotally connected to the torso **74** by joint **86** through torso holes **88**. The upper arms have a fold line at **90**. This fold at the shoulder allows the arm to move up and down. Because joint **86** allows the arm to rotate, the combination of features **86** and **90** allows the figure's arms to move in a wide range of motion which imitates the movements of a human arm. Upper legs **82** are pivotally connected to torso **74** by joint **86** through torso holes **88**. Forearms **80** and lower legs **84** are pivotally connected to upper arms **78** and upper legs **82**, respectively.

FIG. **14** shows a plan view of an unassembled rotatable head. To construct the head, a user first cuts along the black lines. Then, the user folds the head along score line "S". Tab **92** is then inserted into notch **94**. Tab **96** is then inserted into notch **98**, following the direction of fold "S", to form a circular collar which serves both as a neck for the character and as a method of engagement into torso hole **76**. The tabs may be secured in their corresponding notches with the use of tape, adhesive, staples, or any other method known in the art. FIG. **14** is an illustration of just one embodiment of a head with a cylindrical neck.

Many variations on the head are possible for other characters. For example, a dog is depicted in FIG. **15**. The dog's head **100** has a cylindrical neck **101** which is inserted into torso **102** through circular torso hole **104**. The dog's front legs **106** are pivotally connected to torso **102** by joint **108** through torso holes **110**. The front legs have folds at lines **112** and **114** which allow the front legs to move in and out, as well as forward and backward. The extra width provided by the double fold also enhances the stability of the figure. Upper hind legs **116** are pivotally connected to torso **102** by novel joint **108** through torso holes **10**. Lower hind legs **118** are pivotally connected to upper hind legs **116** by a similar pivotal joint. Tail **120** is also pivotally connected to torso **102**. The use of joint **108** allows the tail to wag from left to right, thereby allowing realistic action and poses.

FIG. **16** illustrates a human figure with a torso **122** that comprises two or more sections which are rotatably connected so as to allow the character to be posed in more realistic stances by allowing the torso to twist.

The upper torso section **124** and lower torso section **126** are connected by a cylindrical connector, as illustrated in FIGS. **17** and **18**. The human figure also includes a head **128** which is attached to the torso by sliding tab "T" into slot **130** of upper torso section **124**. Alternatively, a head with a cylindrical neck (as illustrated in FIGS. **13–15**) can be used. The human character further includes upper arms **132**, forearms **134**, upper legs **136** and lower legs **138** which are formed from sheet material. Upper arms **132** and upper legs **136** are pivotally connected to torso sections **124** and **126** by joints **140** through torso holes **142**. Forearms **134** and lower legs **138** are pivotally connected to upper arms **132** and upper legs **136**, respectively. A golf club G is shown extending from forearms **134**.

FIG. **17** shows a torso comprised of two sections: upper section **124** and lower section **126**, which are connected by a cylindrical member **144** through circular holes **146** and **148**. The cylindrical member may be made of any material; for example, cylindrical member **144** may be any cylindrical object, i.e., a straw, a dowel or a peg. FIG. **17** also shows slot **130** and holes **142**, through which the head, arms, and legs of the figure are attached.

FIG. **18** shows a torso comprised of two sections which are connected by cylindrical member **150** through torso holes **152** and **154**. Cylindrical member **150** may be formed from the same sheet material used for the character, or any other flexible sheet material. Like FIG. **17**, FIG. **18** also shows slot **130** and holes **142**, through which the head, arms, and legs of the figure are attached.

FIG. **19** illustrates an unassembled plan view of cylindrical member **150**, which is a rectangular sheet having top and bottom edges **152** and **154** and side edges **156** and **158**. A series of slits extend upward from bottom edge **154** to fold line **159** to form flanges **160**.

FIG. **20** shows an assembled cylindrical member **150** which is formed by rolling the sheet material to align and attach edges **156** and **158** and then folding out flanges **160**. Edges **156** and **158** can be secured by tape, adhesive, tabs

and slots, or other attachment means. The flanges serve to prevent the cylindrical member from disengaging from lower torso section **126**. These flanges can also be used on the upper portion of cylindrical member **150** to prevent it from disengaging from upper section **124** of the torso. An advantage of making member **150** of the same material as the rest of the character is that no additional supplies are needed particularly for the connector.

The character may or may not have a separate head or tail as shown in FIGS. **21** through **24**. FIG. **21** illustrates one preferred embodiment of the invention. This particular character's torso **162** is cylindrically shaped; however, the torso may be of any shape appropriate for the character desired. Torso **162** may be constructed of flexible sheet material. FIG. **21** shows a character in which a piece of material is rolled and then attached to itself at **164** to form a cylinder. The attachment at **164** may be performed by any means known in the art, such as with the use of tabs, adhesive, staples or other fasteners. A face is formed on a front surface of torso **162**. The character has upper arms **166** which are pivotally connected to torso **162** by joint **168** through torso holes **170**. Upper arm **166** has a shoulder fold at **172** which allows the arm to move in an up and down motion, as well as a rotating motion. Lower arms **174** are pivotally connected to upper arms **166** by joint **168**. The character also has upper legs **176** which are pivotally connected to torso **162** by novel joint **168** through torso holes **170**. Lower legs **178** are pivotally connected to upper legs **176** by joint **168**. The torso may be open at both ends, as in FIG. **21**.

Alternatively, the torso may be closed at the ends, as shown in FIGS. **22** and **23**. For example, in the elephant of FIGS. **22** and **23**, an open cylinder **180** is capped at both ends with circular pieces **182**A and **182**B. Tabs **184** of circular pieces **182**A and **182**B may be inserted into slots **186** of torso **180** to secure circular pieces **182**A and **182**B to torso **180**. Then, members such as a head **188** or tail **190** may be attached to circular pieces **182**A or **182**B by inserting tabs **192** of head **188** or tail **190** into slots **194** of circular pieces **182**. Upper leg members **196** are pivotally connected to torso **180** by joint **198** through torso holes **200**. Lower legs **202** are pivotally connected to upper legs **196** by the joint **198**.

FIGS. **24**A–**24**C show a character in which a printed facade **204** is attached to a box or carton torso **206**. FIG. **24**A is a perspective view of the assembled character. FIG. **24**B is similar to FIG. **24**A but shows portions in phantom. FIG. **24**C shows a partial assembly of box **206** and facade **204**.

Facade **204** is attached to box **206** by the insertion of tabs **208** into slots **210**, as best shown in FIG. **24**C. Upper arms **212** are pivotally connected to box **206** by joint **214** through box holes **216**. The upper arms have shoulder folds at **218** and **220**. These folds allow the arms to move up and down, as well as to rotate forward and backward. The extra fold at **220** allows the arm to stand out from the box in order to accommodate a facade which is wider than the box. Lower arms **222** are pivotally connected to upper arms **212** by joint **214**. Feet **224** are pivotally connected to box **206** by joint **214** through box holes **226**. This pivotal connection allows feet **224** to swivel underneath the character's body to allow for variations in posing and motion.

Although the present invention has been described with reference to preferred embodiments, workers skilled in the art will recognize that changes may be made in form and detail without departing from the spirit and scope of the invention.

What is claimed is:

1. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional carton body formed of pliable sheet material, the body comprising a front surface, a left side surface, and a right side surface;

a head formed of pliable sheet material and connected to the body;

a left leg formed of pliable sheet material and pivotally connected to the left side surface by a frictional joint which permits the left leg to be moved to and remain in a multiplicity of different poses, where the joint allows the leg to pivot 360 degrees without disengagement from the body;

a right leg formed of pliable sheet material and pivotally connected to the right side surface by a frictional joint which permits the right leg to be moved to and remain in a multiplicity of different positions, where the joint allows the leg to pivot 360 degrees without disengagement from the body;

a left arm formed of pliable sheet material and pivotally connected to the left side surface by a frictional joint which permits the left arm to be moved to and remain in a multiplicity of different positions, where the joint allows the arm to pivot 360 degrees without disengagement from the body; and

a right arm formed of pliable sheet material and pivotally connected to the right side surface by a frictional joint which permits the right arm to be moved to and remain in a multiplicity of different positions, where the joint allows the arm to pivot 360 degrees without disengagement from the body.

2. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional carton torso, the torso having a front surface, a left side surface, and a right side surface;

wherein the torso comprises:

an upper torso to which the left and right arms are pivotally connected;

a lower torso to which the left and right legs are pivotally connected; and

a pivotable connection between the upper torso and the lower torso;

a head connected to the torso;

a left leg pivotally connected to the left side surface by a frictional joint which permits the left leg to be moved to and remain in a multiplicity of different poses;

a right leg pivotally connected to the right side surface by a frictional joint which permits the right leg to be moved to and remain in a multiplicity of different positions;

a left arm pivotally connected to the left side surface by a frictional joint which permits the left arm to be moved to and remain in a multiplicity of different positions; and

right arm pivotally connected to the right side surface by a frictional joint which permits the right arm to be moved to and remain in a multiplicity of different positions.

3. The posable toy character of claim **2** wherein the upper torso has a circular opening in a lower surface and the lower torso has a circular opening in an upper surface, and the pivotable connection includes a cylindrical member which

extends through the circular openings to connect the upper and lower torsos.

4. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a head formed of pliable sheet material;

a three dimensional carton torso formed of pliable sheet material, the torso comprising a front surface, a left side surface, and a right side surface;

wherein the torso further comprises a top surface with a circular neck opening, and wherein the head includes a cylindrical neck portion which extends into the circular neck opening to connect the head to the torso;

a left leg formed of pliable sheet material and pivotally connected to the left side surface by a frictional joint which permits the left leg to be moved to and remain in a multiplicity of different poses;

right leg formed of pliable sheet material and pivotally connected to the right side surface by a frictional joint which permits the right leg to be moved to and remain in a multiplicity of different positions;

a left arm formed of pliable sheet material and pivotally connected to the left side surface by a frictional joint which permits the left arm to be moved to and remain in a multiplicity of different positions; and

a right arm formed of pliable sheet material and pivotally connected to the right side surface by a frictional joint which permits the right arm to be moved to and remain in a multiplicity of different positions.

5. The posable toy character capable of assuming a multiplicity of different poses the posable toy character comprising:

a three dimensional carton body, the body comprising a front surface, a left side surface, and a right side surface, wherein the body is generally cylindrical with a generally circular cross section;

a head connected to the body;

a left leg pivotally connected to the left side surface by a frictional joint which permits the left leg to be moved to and remain in a multiplicity of different poses, where the joint allows the leg to pivot 360 degrees without disengagement from the body,

a right leg pivotally connected to the right side surface by a frictional joint which permits the right leg to be moved to and remain in a multiplicity of different positions, where the joint allows the leg to pivot 360 degrees without disengagement from the body,

a left arm pivotally connected to the left side surface by a frictional joint which permits the left arm to be moved to and remain in a multiplicity of different positions, where the joint allows the arm to pivot 360 degrees without disengagement from the body; and

a right arm pivotally connected to the right side surface by a frictional joint which permits the right arm to be moved to and remain in a multiplicity of different positions, where the joint allows the arm to pivot 360 degrees without disengagement from the body.

6. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional folded carton body;

first and second left limbs projecting from the body; and

first and second right limbs projecting from the body;

wherein each of the limbs has a proximal end pivotally connected to and in frictional engagement with the body so that each limb can be pivotally moved to a multiplicity of different positions with respect to the body and will remain in a position to which it is moved by frictional engagement of its proximal end with the body, where a pivotal connection allows each limb to pivot 360 degrees without disengagement from the body.

7. The posable toy character of claim **6** wherein the body is generally cylindrical with a generally circular cross section.

8. The posable toy character of claim **6** and further comprising:

a character facade formed of sheet material and attached to the body and positioned in front of the body.

9. The possible toy character of claim **8** wherein the facade has tabs which are inserted into slots in the body to attach the facade to the body.

10. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional folded carton torso, wherein the torso comprises:

an upper torso to which the first left limb and the first right limb are pivotally connected;

lower torso to which the second left limb and second right limb are pivotally connected; and

a pivotable connection between the upper torso and the lower torso;

first and second left limbs projecting from the torso; and

first and second right limbs projecting from torso;

wherein each of the limbs has a proximal end pivotally connected to and in frictional engagement with the torso so that each limb can be pivotally moved to a multiplicity of different positions with respect to the torso and will remain in a position to which it is moved by frictional engagement of its proximal end with the torso.

11. The posable toy character of claim **10** wherein the upper torso has a circular opening in a lower surface and the lower torso has a circular opening in an upper surface, and the pivotable connection includes a cylindrical member which extends through the circular openings to connect the upper and lower torsos.

12. The posable toy character of claim **11** and further comprising:

a character facade formed of sheet material and attached to the torso and positioned in front of the torso.

13. The posable toy character of claim **12** wherein the facade has tabs which are inserted into slots in the torso to attach the facade to the torso.

14. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional folded carton torso;

wherein the torso has a top surface with a circular neck opening, and

wherein a head is pivotally mounted to the torso by a cylindrical neck portion which extends into the circular neck opening;

first and second left limbs projecting from the torso; and

first and second right limbs projecting from the torso;

wherein each of the limbs has a proximal end pivotally connected to and in frictional engagement with the torso so that each limb can be pivotally moved to a

multiplicity of different positions with respect to the torso and will remain in a position to which it is moved by frictional engagement of its proximal end with the torso.

15. A posable toy character comprising:

a cylindrical body formed of sheet material, the body having a first pair of holes spaced apart near a first end of the body and a second pair of holes spaced apart near a second end of the body;

a first pair of limbs formed of sheet material, each of the limbs including a proximal end pivotally connected to one of the first pair of holes and in frictional engagement with the body so that each of the first pair of limbs can be pivotally moved to a multiplicity of different positions with respect to the body and will remain in the position to which it is moved by frictional engagement of its proximal end with the body, where a pivotal connection allows each limb to pivot 360 degrees without disengagement from the body; and

a second pair of limbs formed of sheet material, each of the limbs including a proximal end pivotally connected to one of the second pair of holes and in frictional engagement with the body so that each of the second pair of limbs can be pivotally moved to a multiplicity of different positions with respect to the body and will remain in the position to which it is moved by frictional engagement of its proximal end with the body, where a pivotal connection allows each limb to pivot 360 degrees without disengagement from the body.

16. The posable toy character of claim **5** and further comprising:

a first end piece mounted to a first end of the body; and

a head attached to the first end piece.

17. The posable toy character of claim **16** and further comprising:

a second end piece mounted to a second end of the body; and

a tail attached to the second end piece.

18. A posable toy character capable of assuming a multiplicity of different poses, the posable toy character comprising:

a three dimensional folded carton body; and

first and second limbs projecting from body;

wherein each of the limbs has a proximal end pivotally connected to and in frictional engagement with the body so that each limb can be pivotally moved to a multiplicity of different positions with respect to the body and will remain in a position to which it is moved by frictional engagement of its proximal end with the body, where the pivotal connection allows each limb to pivot 360 degrees without disengagement from the body.

19. The posable toy character of claim **18** wherein the body comprises:

an upper body;

a lower body; and

a pivotable connection between the upper body and the lower body.

20. The posable toy character of claim **19** wherein the upper body has a circular opening in a lower surface and the lower body has a circular opening in an upper surface, and the pivotable connection includes a cylindrical member which extends through the circular openings to connect the upper and lower bodies.

21. The posable toy character of claim **18** wherein the body has a top surface with a circular neck opening, and wherein a head is pivotally mounted to the body by a cylindrical neck portion which extends into the circular neck opening.

22. The posable toy character of claim **18** wherein the body is generally cylindrical with a generally circular cross section.

23. The posable toy character of claim **18** and further comprising:

a character facade formed of sheet material and attached to the body and positioned in front of the body.

24. The posable toy character of claim **23** wherein the facade has tabs which are inserted into slots in the body to attach the facade to the body.

25. A toy character with a three dimensional carton body, wherein the body comprises:

a three dimensional carton upper body formed of pliable sheet material;

a three dimensional carton lower body formed of pliable sheet material; and

a pivotable connection between the upper body and lower body.

26. A toy character with a three dimensional carton body, wherein the body comprises:

a three dimensional carton upper body, wherein the upper body has a circular opening in a lower surface;

a three dimensional carton lower body, wherein the lower body has a circular opening in an upper surface; and

a pivotable connection between the upper body and lower body, wherein the pivotable connection includes a cylindrical member which extends through the circular openings to connect the upper and lower bodies.

27. A toy character formed of pliable sheet material with a three dimensional carton body and a head connected to the body, wherein the body has a top surface with a circular neck opening, and wherein the head includes a cylindrical neck portion which extends into the circular neck opening to connect the head to the body.

28. A toy character comprising:

a three dimensional folded carton body formed of pliable sheet material;

a character facade formed of sheet material and attached to the body and positioned in front of the body; and

a plurality of appendages, each appendage pivotally connected to the body by a frictional joint which permits each appendage to be moved to and remain in a multiplicity of different poses, where the joint allows the appendage to pivot 360 degrees without disengagement from the body.

29. The toy character of claim **28** wherein the facade has tabs which are inserted into slots in the body to attach the facade to the body.

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,120,344
DATED : September 19, 2000
INVENTOR(S) : Jerry L. Brown

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 11,
Line 19, before "right", insert -- a --

Column 12,
Line 27, before "lower", insert -- a --

Signed and Sealed this

First Day of January, 2002

Attest:

JAMES E. ROGAN
Director of the United States Patent and Trademark Office

Attesting Officer